





# MANAGEMENT OF THE **CALIFORNIA STATE WATER PROJECT**

BULLETIN 132-06 | *DECEMBER 2007*

**ARNOLD SCHWARZENEGGER**  
*Governor, State of California*

**MIKE CHRISMAN**  
*Secretary for Resources, The Resources Agency*

**LESTER A. SNOW**  
*Director, Department of Water Resources*



## **Publishing Information**

Cover photo shows an aerial view of Del Valle Dam and Lake del Valle.

Cover design was provided by Xiaojun Li, Graphic Designer, Graphic Services.

Photos were provided by the Public Affairs Office Photography Unit.

Copies of this document are available for \$20.00 per book and \$5.00 per CD ROM from:

Publication Sales  
Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236-0001  
(916) 653-1097

Printed on recycled paper



**Bulletin 132-06**

# **Management of the California State Water Project**

*Covers Activities during Calendar Year 2005*



*Published December 2007*

**Arnold Schwarzenegger** *Governor  
State of California*

**Mike Chrisman** *Secretary for Resources  
The Resources Agency*

**Lester A. Snow** *Director  
Department of Water Resources*



## Foreword

**B**ulletin 132-06, Management of the California State Water Project, continues the Bulletin 132 annual series begun in 1963. Bulletin 132-06 updates water supply planning, construction, financing, management, and operation activities of the State Water Project. Appendix B contains data and computations used to determine the State Water Project contractors' Statement of Charges for 2007. Appendix B was previously published as a separate document.

The Bulletin discusses significant events and issues that affect SWP management and operations. The Bulletin covers the period from January 1, 2005, to December 31, 2005.

Bulletin 132-06 also discusses water supply and delivery; Delta resources and environmental issues, including the CALFED Bay-Delta Authority; Oroville facilities relicensing; financial analysis of the SWP; and the update of business systems in the Department.

A handwritten signature in black ink, appearing to read 'Lester A. Snow', with a long horizontal stroke extending to the right.

Lester A. Snow  
*Director*

# Contents

## Foreword ..... iii

Organization and Acknowledgements..... xxi

Departmental Divisions and Offices ..... xxiii

California Water Commission..... xxiv

Abbreviations and Acronyms ..... xxv

## Executive Summary ..... xxxiii

2005 SWP Highlights ..... xxxv

2005 Precipitation and Water Storage..... xxxv

Precipitation and Snowpack in Water Year 2004–2005..... xxxvi

Runoff ..... xxxvi

Water Year 2004–2005 Storage Totals..... xxxvi

Calendar Year 2005 Storage Totals ..... xxxvi

Water Year 2005–2006 October–December Water Conditions..... xxxvi

2005 Water Supplies, Contracts, and Deliveries ..... xxxvii

2005 Water Deliveries..... xxxvii

Non-SWP Water Conveyance ..... xxxvii

Dry Year Water Purchase Program..... xxxvii

Power Resources ..... xxxvii

Oroville Facilities Relicensing ..... xxxix

Financial Analysis ..... xl

California Water Plan Update 2005 ..... xl

Monterey Amendment ..... xli

Delta Resources and Environmental Issues..... xli

|                                                                                 |      |
|---------------------------------------------------------------------------------|------|
| California Bay-Delta Authority .....                                            | xlii |
| Status of Threatened or Endangered Species Listings .....                       | xliv |
| Pelagic Organism Decline in the Upper San Francisco Estuary .....               | xliv |
| Flood Protection .....                                                          | xlv  |
| Arroyo Pasajero.....                                                            | xlv  |
| Security Measures for the State Water Project after<br>September 11, 2001 ..... | xlv  |
| SWP Milestones through the Decades.....                                         | xlvi |
| Forty Years Ago – 1965 .....                                                    | xlvi |
| Thirty Years Ago – 1975 .....                                                   | xlvi |
| Twenty Years Ago – 1985.....                                                    | xlvi |
| Ten Years Ago – 1995.....                                                       | xlvi |

## **Chapter 1 The State Water Project..... 1**

|                                     |    |
|-------------------------------------|----|
| Precipitation and Runoff .....      | 3  |
| Water Delivery Facilities .....     | 4  |
| Project Design.....                 | 4  |
| Additional Construction .....       | 7  |
| Methods of Financing .....          | 10 |
| Long-Term Contracting Agencies..... | 11 |

## **Chapter 2 Delta Resources..... 15**

|                                                   |    |
|---------------------------------------------------|----|
| Delta Water Management Programs .....             | 17 |
| South Delta Improvements Program.....             | 19 |
| West Delta Program .....                          | 20 |
| North Delta Program .....                         | 21 |
| Delta Flood Control .....                         | 22 |
| CALFED Levee System Integrity Program.....        | 23 |
| Delta Levee Maintenance Subventions Program ..... | 24 |

|                                                  |    |
|--------------------------------------------------|----|
| Delta Special Flood Control Projects.....        | 24 |
| Delta Levees Habitat Improvement.....            | 25 |
| Reuse of Dredged Material for Delta Levees ..... | 26 |
| Levee Upgrades.....                              | 27 |
| Subsidence Investigations .....                  | 27 |
| Delta Agricultural Water Users .....             | 28 |
| South Delta Water Agency Contract.....           | 28 |
| Western Delta Municipal Water Users.....         | 29 |

### **Chapter 3 Environmental Programs..... 31**

|                                                                      |    |
|----------------------------------------------------------------------|----|
| Operations for Species of Concern.....                               | 33 |
| San Joaquin River Activities .....                                   | 33 |
| Piru Creek/Pyramid Dam Operations.....                               | 34 |
| Biological Opinions Issued on the Revised CVP/SWP Operating Plan.... | 35 |
| USFWS Biological Opinion .....                                       | 35 |
| NOAA Fisheries Biological Opinion .....                              | 35 |
| Delta Export Curtailment .....                                       | 36 |
| Decisions on Endangered Species.....                                 | 36 |
| North American Green Sturgeon.....                                   | 36 |
| Trends in Fish Abundance .....                                       | 37 |
| Feather River Fish Studies.....                                      | 40 |
| Pelagic Organism Decline in the Upper San Francisco Estuary .....    | 41 |
| Fish-Related Mitigation Projects.....                                | 42 |

### **Chapter 4 Water Quality Programs..... 45**

|                                                           |    |
|-----------------------------------------------------------|----|
| Delta Activities .....                                    | 47 |
| Water Supply Conditions.....                              | 47 |
| Water Year Classifications and Water Supply Indexes ..... | 47 |

|                                                               |    |
|---------------------------------------------------------------|----|
| Operations under the State Water Resources Control Board      |    |
| Water Right Decision 1641 .....                               | 49 |
| Delta Cross Channel Gates .....                               | 51 |
| Water Quality Standards .....                                 | 51 |
| Municipal and Industrial Objectives.....                      | 51 |
| Agricultural Objectives .....                                 | 51 |
| Estuarine Habitat Protection Standard .....                   | 52 |
| Net Delta Outflow Index Standard.....                         | 53 |
| Flow Standards .....                                          | 53 |
| Export Standards.....                                         | 54 |
| South Delta Temporary Barriers .....                          | 54 |
| Special Study and Biological Surveys.....                     | 55 |
| Fall Dissolved Oxygen Study in the Stockton Ship Channel..... | 55 |
| Phytoplankton and Chlorophyll <i>a</i> Survey.....            | 58 |
| Activities Outside the Delta .....                            | 59 |
| Water Quality Monitoring .....                                | 59 |
| Nonproject Water Turn-ins .....                               | 60 |
| Municipal Water Quality Investigations Program .....          | 60 |
| Bryte Chemical Laboratory .....                               | 64 |
| Suisun Marsh Activities.....                                  | 65 |
| Revised Suisun Marsh Preservation Agreement .....             | 66 |
| Operation and Maintenance.....                                | 67 |
| Monitoring.....                                               | 68 |
| Suisun Marsh Expenditure History.....                         | 68 |

## **Chapter 5 Local Assistance ..... 73**

|                                                                   |    |
|-------------------------------------------------------------------|----|
| Davis-Grunsky Act Program .....                                   | 75 |
| Water Use Efficiency .....                                        | 75 |
| California Irrigation Management Information System (CIMIS) ..... | 75 |
| Water Recycling and Desalination Branch .....                     | 76 |

|                                                           |    |
|-----------------------------------------------------------|----|
| Agricultural Water Management Plans .....                 | 77 |
| Urban Water Management Plans .....                        | 78 |
| Draft Senate Bill 610 and Senate Bill 221 Guidebook ..... | 78 |
| Outreach .....                                            | 78 |
| Agricultural Drainage Program.....                        | 79 |
| Proposition 204 (Drainage Management Subaccount) .....    | 79 |
| San Joaquin Valley Agricultural Drainage Program .....    | 80 |
| Management of Contracts .....                             | 85 |
| Environmental Services .....                              | 86 |
| San Joaquin River Water Quality Improvement Program ..... | 86 |
| On-Farm and Regional Drainage Management Activities ..... | 87 |
| Real-Time Water Quality Monitoring Program .....          | 87 |
| Environmental Impact Documents Review .....               | 89 |
| Water Conservation Bond Laws .....                        | 90 |
| Propositions 25, 44, and 204 .....                        | 90 |
| Proposition 82 .....                                      | 90 |
| Proposition 13 .....                                      | 90 |
| Proposition 50 .....                                      | 91 |

## **Chapter 6 Legislation and Litigation ..... 93**

|                                    |    |
|------------------------------------|----|
| Legislation .....                  | 95 |
| State Legislation.....             | 95 |
| Federal Legislation.....           | 96 |
| Litigation.....                    | 96 |
| Sacramento-San Joaquin Delta ..... | 96 |
| Hydropower.....                    | 99 |

## **Chapter 7 Water Supply Development and Reliability ..... 107**

|                                                                                                                          |     |
|--------------------------------------------------------------------------------------------------------------------------|-----|
| Supply Development and Reliability .....                                                                                 | 109 |
| Water Conveyance Through the SWP .....                                                                                   | 109 |
| SWP Delivery Reliability Report .....                                                                                    | 111 |
| Conjunctive Use and Groundwater Substitution .....                                                                       | 112 |
| Watershed Management.....                                                                                                | 115 |
| SWP Water Rights Activities .....                                                                                        | 115 |
| Water Rights Permits .....                                                                                               | 115 |
| SWP Bay-Delta Proceedings—2005 Activities.....                                                                           | 116 |
| Cease and Desist Order Hearings.....                                                                                     | 116 |
| Sacramento Valley Water Management Agreement.....                                                                        | 116 |
| Periodic Review of the 1995 San Francisco Bay / Sacramento-San<br>Joaquin Delta Estuary Water Quality Control Plan ..... | 117 |
| CALFED Bay-Delta Program .....                                                                                           | 119 |
| Storage Program .....                                                                                                    | 119 |
| Conveyance Program.....                                                                                                  | 122 |
| Environmental Water Account .....                                                                                        | 123 |

## **Chapter 8 Water Supply..... 125**

|                                                             |     |
|-------------------------------------------------------------|-----|
| Water Year 2004–2005.....                                   | 127 |
| Precipitation and Snowpack.....                             | 127 |
| Runoff and Storage .....                                    | 129 |
| Water Year 2005–2006 October–December Water Conditions..... | 131 |
| SWP Storage .....                                           | 131 |
| Water Year 2004–2005 Storage Totals.....                    | 131 |
| Calendar Year 2005 Storage Totals .....                     | 132 |
| Lake Oroville .....                                         | 132 |
| Calendar Year 2005 Inflow and Storage.....                  | 132 |

|                                                          |     |
|----------------------------------------------------------|-----|
| 2004–2005 Water Year San Luis Reservoir Operations ..... | 132 |
| 2004–2005 Water Year Lake Del Valle Operations .....     | 132 |
| 2004–2005 Water Year Southern Reservoir Operations ..... | 135 |
| Diversions from the Delta .....                          | 135 |

## **Chapter 9 Water Contracts and Deliveries ..... 139**

|                                                                  |     |
|------------------------------------------------------------------|-----|
| Amendments to Long-Term SWP Water Supply Contracts .....         | 141 |
| 2005 Amendments to Long-Term Water Supply Contracts .....        | 143 |
| Monterey Amendments .....                                        | 144 |
| Miscellaneous Agreements with Long-Term SWP Contractors .....    | 144 |
| 2005 Water Conveyance and Exchange Agreements.....               | 144 |
| Water Conveyance and Exchange Agreements Prior to 2005 .....     | 147 |
| Turnout Agreements .....                                         | 148 |
| Agreements and Activities Related to the Monterey Amendments ... | 149 |
| Article 21 Water Program .....                                   | 152 |
| Flexible Storage Program .....                                   | 153 |
| Extended Carryover Program .....                                 | 153 |
| Environmental Water Account .....                                | 153 |
| Purchase Assets .....                                            | 154 |
| Operational Assets.....                                          | 155 |
| Miscellaneous Agreements with Other Agencies .....               | 155 |
| Water Conveyance Agreements—CVP Water .....                      | 155 |
| Water Deliveries .....                                           | 157 |
| Approved Table A Deliveries .....                                | 157 |
| SWP Deliveries .....                                             | 157 |
| Water Deliveries to Long-Term SWP Contractors .....              | 158 |
| Water Delivered in 2005 by Month.....                            | 160 |
| Non-SWP Water .....                                              | 160 |
| Annual Table A Water and Water Delivered Since 1962.....         | 161 |



## **Chapter 10 Power Resources..... 177**

|                                                                |     |
|----------------------------------------------------------------|-----|
| Power Resources Program.....                                   | 179 |
| Major Electric Utility Industry Developments .....             | 179 |
| DWR Participation in Electric Utility Industry Activities..... | 180 |
| Oroville Facilities Relicensing .....                          | 182 |
| Existing SWP Power Facilities .....                            | 183 |
| Future SWP Power Facilities.....                               | 185 |
| Contractual Resource Arrangements.....                         | 185 |
| Contractual Transmission Agreements.....                       | 186 |
| Load Management .....                                          | 186 |
| SWP Power Operation in 2005.....                               | 187 |
| Energy Consumed .....                                          | 187 |
| Energy Generated.....                                          | 187 |
| Contractual Resource Arrangements.....                         | 187 |
| Sales of Excess Power.....                                     | 188 |
| Forecasting Power Operations .....                             | 188 |
| Criteria .....                                                 | 189 |

## **Chapter 11 Facilities Maintenance ..... 195**

|                                                             |     |
|-------------------------------------------------------------|-----|
| Inspecting and Maintaining Project Dams .....               | 197 |
| Routine Inspections .....                                   | 197 |
| Joint-Use Facility Inspection .....                         | 197 |
| Underwater Inspection .....                                 | 197 |
| Independent Reviews.....                                    | 198 |
| Arroyo Pasajero Program.....                                | 199 |
| DWR and DWR/Reclamation Alternative Long-term Solution..... | 199 |
| Related Activities .....                                    | 201 |
| Repairs and Modifications.....                              | 201 |

## **Chapter 12 Engineering and Right of Way.....207**

|                                                                                                                                                                                                        |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Design Activities.....                                                                                                                                                                                 | 209 |
| Environmental Activities.....                                                                                                                                                                          | 211 |
| Excavation, Inspection, and Repair–Phase III,<br>Santa Ana Pipeline–State Water Facilities California Aqueduct,<br>Southern Field Division, San Bernardino and Riverside Counties,<br>California ..... | 211 |
| Tehachapi East Afterbay–Completion–Phase II, Antelope<br>Valley–State Water Facilities, California Aqueduct,<br>East Branch, Mojave Division, Kern County, California .....                            | 211 |
| Construction Activities.....                                                                                                                                                                           | 212 |
| Oroville Division.....                                                                                                                                                                                 | 212 |
| Delta Facilities .....                                                                                                                                                                                 | 212 |
| North San Joaquin Division .....                                                                                                                                                                       | 213 |
| San Luis Division .....                                                                                                                                                                                | 214 |
| Tehachapi Division.....                                                                                                                                                                                | 215 |
| West Branch .....                                                                                                                                                                                      | 216 |
| Santa Ana Division .....                                                                                                                                                                               | 217 |
| East Branch Extension.....                                                                                                                                                                             | 217 |
| Construction Activities in Multiple Divisions.....                                                                                                                                                     | 218 |
| Miscellaneous Construction Activities .....                                                                                                                                                            | 219 |
| Upper Jones Tract Levee Breach .....                                                                                                                                                                   | 219 |
| Real Estate Branch Activities.....                                                                                                                                                                     | 220 |

## **Chapter 13 Recreation.....225**

|                                  |     |
|----------------------------------|-----|
| Recreation Areas .....           | 227 |
| Recreation Days.....             | 227 |
| Facilities.....                  | 227 |
| Planning.....                    | 227 |
| New Facilities .....             | 229 |
| Improvements to Facilities ..... | 229 |

|                                |     |
|--------------------------------|-----|
| Oroville Recreation Plan ..... | 230 |
| Fish Plantings .....           | 230 |
| Recreation Financing .....     | 230 |
| Capital Cost Allocations.....  | 232 |
| Accrued Interest Charges ..... | 232 |

## **Chapter 14 Financial Analysis .....235**

|                                          |     |
|------------------------------------------|-----|
| Capital Requirements and Financing ..... | 237 |
| Capital Requirements.....                | 238 |
| Capital Financing .....                  | 243 |
| Capital Financing Sources .....          | 245 |
| Annual Revenues and Expenditures .....   | 247 |
| SWP Revenues.....                        | 247 |
| Project Expenses .....                   | 254 |
| Future Costs of Water Service.....       | 256 |

## **Chapter 15 SWP Education and Information ....263**

|                                                         |     |
|---------------------------------------------------------|-----|
| Media Outreach .....                                    | 265 |
| Relicensing Oroville Facilities .....                   | 265 |
| Snow Surveys .....                                      | 265 |
| California Bay-Delta Authority .....                    | 265 |
| News Events.....                                        | 265 |
| Community Relations.....                                | 266 |
| Oroville .....                                          | 266 |
| California Lakes and Reservoirs Appreciation Week ..... | 266 |
| Video.....                                              | 267 |
| Photography .....                                       | 267 |
| Audio-Visual .....                                      | 267 |
| Community Outreach.....                                 | 268 |

|                                        |     |
|----------------------------------------|-----|
| SWP Tours.....                         | 268 |
| Displays and Exhibits .....            | 268 |
| Oroville Field Division.....           | 268 |
| Delta Field Division .....             | 268 |
| San Luis Field Division.....           | 268 |
| Oral History Program .....             | 268 |
| School Education Program .....         | 268 |
| Water Awareness Month Activities ..... | 270 |

**Appendix A: Annual Financial Report (discontinued)**

**Appendix B: Data and Computations Used to Determine 2007 Water Charges**

**Appendix D: Costs of Recreation and Fish and Wildlife Enhancement (discontinued)**

**Appendix E: Water Operations in the Sacramento-San Joaquin Delta (bound separately)**

**Appendix F: San Joaquin Valley Post-Project Economic Impact (discontinued)**

## Tables

|                                                                                                                      |         |
|----------------------------------------------------------------------------------------------------------------------|---------|
| <b>Table ES-1</b> SWP Water Delivered by Category, 1962-2005.....                                                    | xxxviii |
| <b>Table 1-1</b> Physical Characteristics of Primary Storage Facilities.....                                         | 7       |
| <b>Table 1-2</b> Physical Characteristics of Primary Dams .....                                                      | 8       |
| <b>Table 1-3</b> Pumping Plant Characteristics .....                                                                 | 8       |
| <b>Table 1-4</b> Power Plant Characteristics, by Type and Facility .....                                             | 9       |
| <b>Table 1-5</b> Total Miles of Aqueducts .....                                                                      | 9       |
| <b>Table 1-6</b> Long-Term Water Supply Contracting Agencies, by Area,<br>as of December 31, 2005.....               | 12      |
| <b>Table 4-1</b> 2005 Mean Water Quality at Selected State Water Project<br>Locations .....                          | 61      |
| <b>Table 4-2</b> Suisun Marsh Expenditures and Reimbursements<br>Administered by DWR.....                            | 71      |
| <b>Table 5-1</b> Water Conservation Bond Laws - Projects and Funding .....                                           | 92      |
| <b>Table 9-1</b> 2005 Turn-Back Water Pool Program (Acre-feet) .....                                                 | 150     |
| <b>Table 9-2</b> Article 21 Water Deliveries (Acre-feet) .....                                                       | 152     |
| <b>Table 9-3</b> Water Delivered to Long-Term Contractors<br>through 2005 (Acre-Feet) .....                          | 163     |
| <b>Table 9-4</b> Total Amounts of Water Delivered in 2005, by Month.....                                             | 164     |
| <b>Table 9-5</b> Total Amounts of Annual Table A Water and<br>Water Conveyed, by Type, 1962-2005 (Acre-Feet) .....   | 174     |
| <b>Table 10-1</b> Energy Used at Pumping Plants and Power Plants<br>in 2005, by Month.....                           | 190     |
| <b>Table 10-2</b> Energy Generated and Purchased in 2005, by Month.....                                              | 191     |
| <b>Table 10-3</b> Power, Transmission, and Other Services Purchased<br>in 2005 and Costs of Purchases, by Area ..... | 192     |
| <b>Table 10-4</b> Energy Sold in 2005 and Revenue from Sales, by Area....                                            | 193     |
| <b>Table 11-1</b> Outages for Maintenance and Repair of Facilities<br>in 2005, by Month.....                         | 202     |

## Tables, continued

|                                                                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Table 12-1</b> Design Activities, January 1, 2005, through December 31, 2005, by Division .....                                                          | 221 |
| <b>Table 12-2</b> Construction Activities, January 1, 2005, through December 31, 2005, by Division .....                                                    | 222 |
| <b>Table 13-1</b> Recreation-Days Recorded in 2005, by Field Division and Facility .....                                                                    | 229 |
| <b>Table 13-2</b> Fish Planted in 2005 (Thousands) .....                                                                                                    | 231 |
| <b>Table 13-3</b> Recreation and Enhancement Costs of the State Water Project .....                                                                         | 233 |
| <b>Table 13-4</b> Calculation of Interest Accruals on California Water Resources Development Bond Fund Disbursements (in dollars at 4.608% per annum) ..... | 234 |
| <b>Table 14-1</b> Capital Requirements and Financing, December 31, 2005 (Thousands of Dollars) .....                                                        | 259 |
| <b>Table 14-2</b> State Water Project Revenues and Expenditures, December 31, 2005 .....                                                                    | 260 |
| <b>Table 14-3</b> Allocation of Capital Expenditures .....                                                                                                  | 239 |
| <b>Table 14-4</b> East Branch Enlargement Capital Costs by Facility .....                                                                                   | 242 |
| <b>Table 14-5</b> Estimated Capital Costs for Power Generation and Transmission Facilities .....                                                            | 242 |
| <b>Table 14-6</b> Estimated Future Costs for Planning Additional Conservation Facilities .....                                                              | 242 |
| <b>Table 14-7</b> Application of Revenue Bond Proceeds .....                                                                                                | 244 |
| <b>Table 14-8</b> Revenue Bond Proceeds Affecting Project Interest Rate ..                                                                                  | 249 |
| <b>Table 14-9</b> Actual Bond Sales and Project Interest Rates, by Date of Sale .....                                                                       | 250 |
| <b>Table 14-10</b> Operations, Maintenance, Power, and Replacement Costs, by Facility, Composition, and Purpose .....                                       | 261 |
| <b>Table 14-11</b> Annual Debt Service on Bonds Sold through December 31, 2005 .....                                                                        | 262 |

## Figures

|                                                                                                                            |     |
|----------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Figure 1-1</b> Names and Locations of Primary Water Delivery Facilities, December 31, 2005.....                         | 5   |
| <b>Figure 1-2</b> Names, Locations, and First Year of Service of Long-Term Contracting Agencies, December 31, 2005 .....   | 13  |
| <b>Figure 2-1</b> The North, West, and South Delta Water Management Programs.....                                          | 18  |
| <b>Figure 3-1</b> Delta Smelt Fall Midwater Trawl Abundance Index, 1967–2005 .....                                         | 38  |
| <b>Figure 3-2</b> Estimated Total Adult Winter-Run Chinook Salmon Escapement, 1967–2005.....                               | 38  |
| <b>Figure 3-3</b> Estimated Spring-Run Chinook Salmon Escapement, 1990–2005 .....                                          | 39  |
| <b>Figure 4-1</b> Decision 1641 Water Quality Compliance and Monitoring Stations in the Sacramento-San Joaquin Delta ..... | 50  |
| <b>Figure 4-2</b> Compliance and Monitoring Stations in the Suisun Bay and Marsh.....                                      | 70  |
| <b>Figure 5-1</b> San Joaquin River Input-Output Day Modeling Forecasts Example .....                                      | 88  |
| <b>Figure 7-1</b> Projected SWP System Delivery Capability (Scenario 2025, Annual Table A).....                            | 113 |
| <b>Figure 8-1</b> Statewide Precipitation by Hydrologic Region, 2004–2005 Water Year, Percentage Average.....              | 130 |
| <b>Figure 8-2</b> Monthly Lake Oroville Inflow, 2003–2005 .....                                                            | 133 |
| <b>Figure 8-3</b> Cumulative Maximum, Minimum, and Current Lake Oroville Inflow .....                                      | 133 |
| <b>Figure 8-4</b> End-of-Month Storage in Lake Oroville, 2004 and 2005 Calendar Years.....                                 | 134 |
| <b>Figure 8-5</b> End-of-Month Storage in San Luis Reservoir, 2004 and 2005 Calendar Years .....                           | 134 |
| <b>Figure 8-6</b> Water Pumped at Banks Pumping Plant, 2005 by Month..                                                     | 136 |
| <b>Figure 8-7</b> Sacramento-San Joaquin Delta Exports by State Water Project and Central Valley Project, 2005 .....       | 136 |

## Figures, continued

|                                                                                                                                                                                          |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Figure 8-8</b> Water Pumped At Dos Amigos Pumping Plant, 2005<br>by Month.....                                                                                                        | 137 |
| <b>Figure 8-9</b> Water Pumped at Edmonston Pumping Plant, 2005<br>by Month.....                                                                                                         | 137 |
| <b>Figure 9-1</b> Water Delivered in 2005 and Delivery Locations of<br>Long-Term Water Supply Contractors and Feather River Area<br>Districts with Water Right Agreements with DWR ..... | 159 |
| <b>Figure 10-1</b> Names, Locations, and Nameplate Capacities<br>of Primary Power Facilities .....                                                                                       | 184 |
| <b>Figure 13-1</b> Names and Locations of SWP Recreation Areas.....                                                                                                                      | 228 |
| <b>Figure 15-1</b> Visitors Centers on the SWP .....                                                                                                                                     | 269 |



## Sidebars

|                                                                    |       |
|--------------------------------------------------------------------|-------|
| State Water Project Power Generation and Consumption in 2005 ..... | xxxix |
| 2005 Income Statement for the State Water Project .....            | xli   |
| Endangered Species Acts.....                                       | 37    |
| State Water Resources Control Board .....                          | 48    |
| Suisun Marsh Preservation Agreement.....                           | 66    |
| Water Code Section 1810–1811 .....                                 | 103   |
| Water Code Section 1812–1814 .....                                 | 104   |
| Environmental Review Acts.....                                     | 105   |
| Environmental Review Acts, Continued .....                         | 106   |
| CALFED Bay-Delta Program .....                                     | 118   |
| Long-Term SWP Water Supply Contracts .....                         | 142   |

**State of California**

Arnold Schwarzenegger, Governor

**The Resources Agency**

Mike Chrisman, Secretary for Resources

**Department of Water Resources**

Lester A. Snow, Director

Susan Sims Teixeira, Acting Chief Deputy Director

David A. Sandino, Chief Counsel

Kasey Schimke, Assistant Director, Legislative Affairs

Susan Sims Teixeira, Assistant Director, Public Affairs

Timothy Haines, Deputy Director

Raphael A. Torres, Deputy Director

Rueben Jiminez, Deputy Director

Mark Cowin, Deputy Director

Gerald E. Johns, Deputy Director

David Gutierrez, Deputy Director

This report was prepared under the direction of

**State Water Project Analysis Office**

Robert B. Cooke, Chief

Mark Andersen, Principal Engineer

Michael Werner, Principal Engineer

By

**Bulletin 132 Section**

Lauren D. Muscatine, Chief

Deborah McEwan, Research Writer

Therese J. Tynan, Research Writer

Lorna K. Wilson, Research Writer

With major contributions provided under the direction of

Teodoro Alvarez, Chief, Oroville Facilities Relicensing Branch

Chi Doan, Chief, Project Power Contracts Branch

William Forsythe, Project Power Management

Teresa Geimer, Chief, Water Supply and Transfers Branch

Gwen Knittweis, Chief, Water Delivery Analysis and Documentation Branch

Nancy Quan, Bay-Delta Hearings and Program Development

Linda Quok, Chief, Project Power Planning Branch

Ernie Tapia, Project Water Management

Craig Trombly, Chief, Water Contracts Branch

Pedro Villalobos, Chief, Project Cost Branch

Lori Brown, Senior Engineer

Rick Buckingham, Senior Engineer

Daniel Cretu, Senior Engineer

Holly Cronin, Senior Engineer

Miguel De Anda, Senior Engineer

Andrea Glasgow, Senior Engineer

Jerry Green, Senior Engineer

Charles Kearney, Senior Engineer

Lincoln King, Senior Engineer

Susan Lee, Senior Engineer

Charles Mee, Senior Engineer

Paul Mendoza, Senior Engineer

Lucas Munoz, Senior Engineer

Dave Paulson, Senior Engineer

Amir Rangchi, Senior Engineer

Bhupinder Sandhu, Senior Engineer

Maureen Sergeant, Senior Engineer

Lee Terry, Senior Engineer

Kuen Tsay, Senior Engineer

James Upholt, Senior Engineer

## Assisted by State Water Project Analysis Office Staff

Frank Acuna  
Shahram Ahi  
Bob Aldridge  
Ghassan Alqaser  
Mohammed Anwar  
Melanie Baillie  
Sal Batmanghilich  
Laura Boosalis  
LaTresce Brown  
Lidia Bryant  
Jonathan Canuela  
Jess Cason  
Grace Cheng  
Teresa Clausen  
Rosi Corral  
Nicole Darby  
Don Davis  
Amrik Dhugga  
Dan Flory  
Haydeh Hakim-Edrissi  
Steven Heinbach  
Eric Ho  
Dennis Johnson  
Jon Jones  
David Lane  
Sue Larsen  
Shirley Liu  
Howard Lockard  
Gary Lotspeich  
Barry Mahoney  
Jagruti Maroney  
Gerold Mateo

Edgar Najera  
Douglas Nelson  
Laura Nelson  
Do Nguyen  
Mohan Niroula  
Adam Pan  
Elizabeth Patterson  
Shawna Pawlaczyk  
Balwant Purewal  
Angela Reynolds  
Mark Risney  
Magshoud Saghaimarroof  
Jon Seehafer  
Sharin Schellbach  
Jamie So  
Curtis Spencer  
Ellen Tam  
Alice Tay  
Mark Thompson  
Pamela Tom  
Mike Torabian  
Maifiny Vang  
Cecelia Vasquez  
Bill Voss  
Andrew Ward  
Carol White  
Dietlind Wiesner  
Janet Wolf-Eshe  
Ingdean Yan  
Ahrash Zamanian  
Reza Zamanian  
Long Zhou

## Departmental Divisions and Offices

Information, financial and cost accounting data, or reviews of material provided by staff members of:

### **Executive Division**

Raphael A. Torres, Deputy Director  
Kasey Schimke, Assistant Director  
Legislative Affairs

### **Executive Manager Power Systems**

Veronica G. Hicks, Chief

### **Division of Operations and Maintenance**

Carl Torgersen, Chief  
Peter Scheele, Chief, Oroville Field Division  
Dave Duval, Chief, Delta Field Division  
Jim Thomas, Chief, San Luis Field Division  
Jeff J. Said, Chief, San Joaquin Field Division  
Don Perez, Chief, Southern Field Division

### **Division of Engineering**

Richard Sanchez, Chief

### **Division of Fiscal Services**

Perla Netto-Brown, Chief

### **Division of Flood Management**

Rod Mayer, Chief

### **Division of Planning and Local Assistance**

Mark Cowin, Chief  
Glen Pearson, Acting Chief, Northern District  
Karl P. Winkler, Chief, Central District  
Paula J. Landis, Chief, San Joaquin District  
Mark Stuart, Chief, Southern District

### **Division of Safety of Dams**

David A. Gutierrez, Chief

### **Bay-Delta Office**

Katherine F. Kelly, Chief

### **Division of Environmental Services**

Barbara McDonnell, Chief

### **Office of the Chief Counsel**

David Sandino, Chief Counsel

### **Office of Water Use Efficiency and Transfers**

Rick Soehren, Chief

## California Water Commission

The California Water Commission serves as a policy advisory body to the Director of Water Resources on all California water resources matters. The citizen commission provides a water resources forum for the people of the State, acts as a liaison between the legislative and executive branches of State government, and coordinates federal, State, and local water resources efforts. As of March 2004, all members had either resigned or their terms had expired. New members have not been appointed by the Governor at the time of printing of this bulletin.

## Abbreviations and Acronyms

### A

AB Assembly Bill  
 ACWA Association of California Water Agencies  
 ADA Americans with Disabilities Act  
 af acre-feet  
 AFRP Anadromous Fish Restoration Plan  
 Ag Council Agricultural Water Management Council  
 ASCE American Society of Civil Engineers  
 AWMP Agricultural Water Management Plan

### B

BDAC Bay-Delta Advisory Council  
 BDPAC Bay-Delta Public Advisory Committee  
 BOD biochemical oxygen demand

### C

CAISO California Independent System Operator  
 CALFED State (CAL) and federal (FED) agencies participating in the Bay-Delta Accord  
 CalPX California Power Exchange  
 CAMAL California Association of Mutual Aid Laboratories  
 C.A.S.T. Catch a Special Thrill  
 CBDA California Bay-Delta Authority  
 CCSG Cantua Creek Stream Group  
 CCWA Central Coast Water Authority  
 CD Conservation District  
 CDEC California Date Exchange Center  
 CEA Capacity Exchange Agreement  
 CEQA California Environmental Quality Act  
 CESA California Endangered Species Act  
 cfs cubic feet per second  
 CIDH cast in drill hole  
 CIMIS California Irrigation Management Information System  
 COA Coordinated Operation Agreement  
 Corps U.S. Army Corps of Engineers

CPUC California Public Utilities Commission  
CUSE Catholic University of Santiago del Estero  
CVC Cross Valley Canal  
CVHJV Central Valley Habitat Joint Venture  
CVP Central Valley Project  
CVPIA Central Valley Project Improvement Act  
CVRWQCB Central Valley Regional Water Quality Control Board

**D**

D-1485 State Water Resources Control Board Water Right Decision 1485  
D-1641 State Water Resources Control Board Water Right Decision 1641  
DBPs disinfection by-products  
DBW California Department of Boating and Waterways  
DCC Delta Cross Channel  
DCVCW Direct Cross Valley Canal Wheeling  
DEIR draft environmental impact report  
DFG California Department of Fish and Game  
DHS California Department of Health Services  
DLRD Delta Lands Reclamation District  
DO dissolved oxygen  
DOC dissolved organic carbon  
DOE Department of Energy or Division of Engineering  
DOI U.S. Department of the Interior or Delta Outflow Index  
DPR California Department of Parks and Recreation  
DPS Distinct Population Segment  
DSM2 Delta Simulation Model 2  
DSOD Division of Safety of Dams  
DWR California Department of Water Resources

**E**

EA/IS Environmental Assessment/Initial Study  
EBRPD East Bay Regional Park District  
ECAT Environmental Coordination Advisory Team  
EHV extra-high voltage  
E/I Export/Import  
EIR environmental impact report  
EIS environmental impact statement  
EPA U.S. Environmental Protection Agency  
ESA Endangered Species Act  
ESO Environmental Services Office  
ESU Evolutionarily Significant Unit  
ETo Reference Evapotranspiration  
EWA Environmental Water Account

**F**

FERC Federal Energy Regulatory Commission  
 FLIMS Field and Laboratory Information Management System

**G**

GBP Grasslands Bypass Project  
 gpm gallons per minute

**H**

HMP Hazard Mitigation Plan

**I**

ICR Information Collection Rule  
 IEP Interagency Ecological Program  
 IFDM Integrated on-Farm Drainage Management  
 IHSim Integrated Hydrological Simulator  
 INDP Interim North Delta Plan  
 ISDP Interim South Delta Program  
 ISI Integrated Storage Investigation  
 ITRC Irrigation Training and Research Center

**J**

JWR&DTF Joint Water Reuse & Desalination Task Force

**K**

kV kilovolt  
 KWB Kern Water Bank  
 kWh kilowatt hour

**L**

LADWP Los Angeles Department of Water and Power  
 LSEs Load Serving Entities

**M**

maf million acre-feet  
 MCL maximum contaminant level  
 MCWA Mokelumne-Cosumnes Watershed Alliance



MD02 Market Design 2002  
MFP Middle Fork Project  
mg/L milligrams per liter  
MIB Methylisoborneol  
MIDS Morrow Island Distribution System  
MRTU Market Redesign and Technology Upgrade  
MTBE methyl tertiary butyl ether  
MWh megawatt hour  
MWQI Municipal Water Quality Investigations

**N**

NBA North Bay Aqueduct  
NDOI Net Delta Outflow Index  
NEMDC Natomas East Main Drainage Canal  
NEPA National Environmental Policy Act  
NOAA Fisheries National Marine Fisheries Service  
NODOS north-of-the-Delta offstream storage  
NOP/NOI Notice of Preparation/Notice of Intent  
NPC Nevada Power Company  
NPDES National Pollutant Discharge Elimination System

**O**

OBS optical backscatter  
OCAP Operating Criteria and Plan  
O&M Division of Operations and Maintenance  
OM&P operations, maintenance, and power  
OMP&R operations, maintenance, power, and replacement  
OM&R operations, maintenance, and replacement

**P**

PCL Planning and Conservation League  
PG&E Pacific Gas and Electric Company  
pH [p(otential) of H(ydrogen)]  
ppt parts per thousand  
PAO Public Affairs Office  
PDEA Preliminary Draft Environmental Assessment  
PFMA Potential Failure Mode Analysis  
PM particulate matter  
POD pelagic organism decline  
PSA Public Service Announcement  
PSP Proposal Solicitation Packet

**Q**

QA/QC Quality Assurance/Quality Control

**R**

RCRC Regional Council of Rural Counties  
 RD reclamation district  
 Reclamation Bureau of Reclamation  
 RMR Reliability Must-Run  
 RMS Reliability Management System  
 ROD Record of Decision  
 RRR Red Rock Ranch  
 RTWQMP Real-time Water Quality Monitoring Program

**S**

SAP System Application Products  
 SB Senate Bill  
 SCE Southern California Edison  
 SDG&E San Diego Gas and Electric  
 SDIP South Delta Improvements Program  
 SDTBP South Delta Temporary Barriers Project  
 SDWA South Delta Water Agency  
 Se Selenium  
 SEW Suisun Ecological Workgroup  
 SGA Sacramento Groundwater Authority  
 SJVDIP San Joaquin Valley Drainage Implementation Program  
 SJRA San Joaquin River Agreement  
 SJREC San Joaquin River Exchange Contractors Water Authority  
 SJRIODAY San Joaquin River Input-Output Day  
 SLFD San Luis Field Division  
 SMPA Suisun Marsh Preservation Agreement  
 SMSCG Suisun Marsh Salinity Control Gates  
 SNL Sandia National Laboratories  
 SPPC Sierra Pacific Power Company  
 SRB State Reclamation Board  
 SRCD Suisun Resource Conservation District  
 STID Supporting Technical Information Document  
 SVUR Sacramento Valley Unimpaired Runoff  
 SVWMA Sacramento Valley Water Management Agreement  
 SVWMP Sacramento Valley Water Management Program  
 SWP State Water Project  
 SWRCB State Water Resources Control Board  
 SWT Sephton Water Technology

**T**

taf thousand acre-feet  
TDF through-Delta facilities  
TEAM Transmission Economic Assessment Methodology  
THM trihalomethane  
TOC total organic carbon

**U**

UCLA University of California at Los Angeles  
USFWS U.S. Fish and Wildlife Service  
USGS U.S. Geological Survey  
UWMP Urban Water Management Plan

**V**

VAMP Vernalis Adaptive Management Plan  
VTE vertical tube evaporation

**W**

WAM Water Awareness Month  
WECC Western Electricity Coordinating Council  
WET Water Education for Teachers  
WQA water quality assessment  
WQCP Water Quality Control Plan  
WR 95-06 SWRCB Water Right Order 95-06  
WSCC Western Systems Coordinating Council  
WSDB West Side Detention Basin

The State Water Project long-term water supply contractors are listed below, followed by shortened forms of their names that are used in Bulletin 132 instead of acronyms.

|                                                                      |                 |
|----------------------------------------------------------------------|-----------------|
| Alameda County Flood Control and Water Conservation District, Zone 7 | Alameda-Zone 7  |
| Alameda County Water District                                        | Alameda County  |
| Antelope Valley-East Kern Water Agency                               | AVEK            |
| Castaic Lake Water Agency                                            | Castaic Lake    |
| City of Yuba City                                                    | Yuba City       |
| Coachella Valley Water District                                      | Coachella       |
| County of Butte                                                      | Butte           |
| County of Kings                                                      | Kings           |
| Crestline-Lake Arrowhead Water Agency                                | Crestline       |
| Desert Water Agency                                                  | Desert          |
| Dudley Ridge Water District                                          | Dudley Ridge    |
| Empire-West Side Irrigation District                                 | Empire          |
| Kern County Water Agency                                             | Kern            |
| Little Rock Creek Irrigation District                                | Little Rock     |
| Metropolitan Water District of Southern California                   | Metropolitan    |
| Mojave Water Agency                                                  | Mojave          |
| Napa County Flood Control and Water Conservation District            | Napa            |
| Oak Flat Water District                                              | Oak Flat        |
| Palmdale Water District                                              | Palmdale        |
| Plumas County Flood Control and Water Conservation District          | Plumas          |
| San Bernardino Valley Municipal Water District                       | San Bernardino  |
| San Gabriel Valley Municipal Water District                          | San Gabriel     |
| San Geronimo Pass Water Agency                                       | San Geronimo    |
| San Luis Obispo County Flood Control and Water Conservation District | San Luis Obispo |
| Santa Barbara County Flood Control and Water Conservation District   | Santa Barbara   |
| Santa Clara Valley Water District                                    | Santa Clara     |
| Solano County Water Agency                                           | Solano          |
| Tulare Lake Basin Water Storage District                             | Tulare          |
| Ventura County Watershed Protection District                         | Ventura         |

The non-SWP water contractors are listed below, followed by shortened forms of their names that are used in Bulletin 132 instead of acronyms.

|                                               |                          |
|-----------------------------------------------|--------------------------|
| Arvin-Edison Water Storage District           | Arvin-Edison             |
| Belridge Water Storage District               | Belridge                 |
| Berrenda Mesa Water District                  | Berrenda Mesa            |
| Buena Vista Water Storage District            | Buena Vista              |
| Byron-Bethany Irrigation District             | Byron-Bethany            |
| Cawelo Water District                         | Cawelo                   |
| Contra Costa Water District                   | Contra Costa             |
| County of Tulare                              | Tulare                   |
| East Contra Costa Irrigation District         | East Contra Costa        |
| Fresno County Public Works                    | Fresno                   |
| Hills Valley Irrigation District              | Hills Valley             |
| Kern-Tulare Water District                    | Kern-Tulare              |
| Lost Hills Water District                     | Lost Hills               |
| Lower Tule River Irrigation District          | Lower Tule               |
| Merced Irrigation District                    | Merced                   |
| Pixley Irrigation District                    | Pixley                   |
| Placer County Water Agency                    | Placer                   |
| Rag Gulch Water District                      | Rag Gulch                |
| Rosedale-Rio Bravo Water Storage District     | Rosedale-Rio             |
| San Luis & Delta-Mendota Water Authority      | San Luis & Delta-Mendota |
| Semitropic Water Storage District             | Semitropic               |
| South Feather Water and Power Agency          | South Feather            |
| Tranquility Irrigation District               | Tranquility              |
| Tri-Valley Water District                     | Tri-Valley               |
| United Water Conservation District            | United                   |
| West Kern Water District                      | West Kern                |
| Western Hills Water District                  | Western Hills            |
| Westlands Water District                      | Westlands                |
| Westside Mutual Water Company                 | Westside                 |
| Wheeler Ridge-Maricopa Water Storage District | Wheeler Ridge-Maricopa   |
| Yuba County Water Agency                      | Yuba                     |



## Executive Summary

**P**art of the North Bay Aqueduct, the Cordelia Pumping Plant serves the cities of Benecia, Vallejo, and Napa.



The Bulletin 132 series began in 1963 and reported the first deliveries of water by the new State Water Project (SWP), which was still under construction. Bulletin 132-06, Management of the California State Water Project, continues this series with the forty-fourth edition. It reports planning, construction, financing, managing, and operating activities of the SWP in 2005. The SWP is operated and maintained by the California Department of Water Resources (DWR).

## 2005 SWP Highlights

The SWP is one of the largest water and power systems in the world. It conveys an average annual 2.4 million af of water through its 17 pumping plants, 8 hydroelectric power plants, 3 pumping-generating plants, 29 dams and reservoirs, and about 675 miles of aqueducts and pipelines.

California experienced higher-than-average rainfall and mountain snowpack during water year 2004–2005. The State received precipitation at 140 percent of average. The Sacramento Valley Water Year Hydrologic Classification (40-30-30 Index) was above normal and the San Joaquin Valley Water Year Hydrologic Classification (60-20-20 Index) was wet. The Northern Sierra Eight Station Index finished with 57.5 inches of precipitation, or 115 percent of average.

Water storage in all SWP reservoirs at the end of water year 2004–2005 was 4.52 maf, or 83 percent of average. Total water storage in major SWP reservoirs at the end of calendar year 2005 was about 4.64 maf, as compared with 3.07 maf in 2004.

The project provides water for approximately 24 million people throughout the State, irrigation for 750,000 acres of farmland, and environmental benefits to wildlife refuges, as well as environmental mitigation

programs. In 2005, the SWP delivered 4,732,633 af of water to 27 of its 29 long-term contractors and 26 other agencies. Ten non-SWP agencies in the Feather River area received 1,074,706 af.

DWR continued to be its own energy scheduling coordinator with the California Independent System Operator (CAISO) and to schedule the purchase and sale of energy to operate the SWP. In 2005, energy used at the 28 SWP pumping and generating plants totaled 8.29 million MWh. DWR sold 2.15 million MWh of energy to 20 utilities and 22 power marketers, for total revenues of \$148.62 million in 2005.

The project continued to pay bondholders as scheduled and remained financially viable. The long-term water contractors continued to repay project construction bonds and operating expenses. In 2005, the SWP handled approximately \$789 million each in revenues and expenses, with General Fund contributions limited to recreation facilities.

## 2005 Precipitation and Water Storage

The water stored and delivered by the SWP conservation and transportation facilities originates from rainfall and snowmelt in Northern and Central California watersheds, where most of the State's



precipitation occurs. DWR monitors and records annual precipitation and runoff during each water year, which begins on October 1 and ends on September 30.

### **Precipitation and Snowpack in Water Year 2004–2005**

California experienced higher-than-average rainfall and mountain snowpack during water year 2004–2005. The State received precipitation at 140 percent of average in 2004–2005, as compared to 85 percent of average in 2003–2004. During the second week of April 2005, the statewide average snowpack peaked at 40 inches of snow water content. This amount of mountain snowpack is 146 percent of normal. These snowpack conditions are in stark contrast to snowpack levels in 2003–2004. During that time period, the statewide snow water content peaked at 30 inches in the first week of March. The Northern Sierra Eight Station Index finished the 2004–2005 water year with 57.5 inches of precipitation, which was 115 percent of average.

### **Runoff**

Statewide river runoff totaled 105 percent of average in water year 2004–2005. Runoff in the Sacramento River and San Joaquin River regions was 95 percent and 150 percent of average, respectively.

The Sacramento River Index for water year 2004–2005 was 18.5 maf (95 percent of average). The Sacramento Valley Water Year Hydrologic Classification (40-30-30 Index) was above normal, based on observed data for water year 2004–2005.

The San Joaquin River system unimpaired runoff from the Stanislaus, Tuolumne, Merced, and San Joaquin rivers was

9.2 maf (155 percent of average). The San Joaquin Valley Water Year Hydrologic Classification (60-20-20 Index) was wet, based on observed data for water year 2004–2005.

### **Water Year 2004–2005 Storage Totals**

Total water storage in all SWP reservoirs at the end of water year 2004–2005 was 4.52 maf, or 83 percent of average, compared to 2.99 maf or 76 percent of average at the end of water year 2003–2004. The average end-of-month total storage in major SWP reservoirs was 4.19 maf. End-of-water-year storage on September 30, 2005, at Lake Oroville was 2.88 maf, which was about 1.13 maf more than water year 2003–2004.

### **Calendar Year 2005 Storage Totals**

Total water storage in major SWP reservoirs at the end of calendar year 2005 was about 4.64 maf, as compared with 3.07 maf in 2004.

### **Water Year 2005–2006 October–December Water Conditions**

The last three months of calendar year 2005 mark the beginning of a new water year, 2005–2006. By the end of October, the runoff was near 80 percent of average in the Northern Sierra and closer to average in the central and southern regions of the Sierra. November provided lower percentages of average runoff. By the end of November, statewide runoff since October 1 had fallen to near 70 percent of average. December, however, resulted in near 200 percent of normal precipitation statewide and, in addition, the statewide water year-to-date runoff rose to nearly 200 percent of average.

## 2005 Water Supplies, Contracts, and Deliveries

### 2005 Water Deliveries

DWR approved deliveries of 1.65 million af on November 30, 2004, resulting in initial approved Table A amounts of 40 percent of most SWP contractor requests. DWR increased the 2005 approved Table A amounts to 2.48 million af, or 60 percent on January 14, 2005. As water conditions improved, approved Table A amounts were increased to 2.89 million af (70 percent) on April 1, 2005, 3.30 million af (80 percent) on April 21, 2005, and 3.30 million af (90 percent) on May 27, 2005.

In 2005, 4,732,633 af of water were conveyed to 27 long-term contractors and 26 other agencies. That amount includes:

- 2,828,406 af of approved Table A water;
- 731,083 af of Article 21 water;
- 1,506 af of SWP water for recreation and fish and wildlife;
- 1,101,429 af of water delivered to satisfy water rights settlement agreements and agreements with SWP contractors for local water supplies; and
- 70,209 af of water delivered to satisfy agreements between the SWP and the Central Valley Project (CVP).

Table ES-1 on page 6 shows SWP water deliveries by category for 1962–2005.

### Non-SWP Water Conveyance

In 2005, DWR conveyed 67,792 af of CVP water through SWP facilities for the Bureau of Reclamation (Reclamation).

## Dry Year Water Purchase Program

Due to the wet hydrology of 2005, there was no need for a dry year water purchase program.

## Power Resources

In 2005, energy used at the 29 SWP pumping and generating plants totaled 8.29 million MWh.

The Hyatt-Thermalito power complex in Oroville generated 1.83 million MWh of energy in 2005. Energy generated at SWP aqueduct recovery plants—Gianelli, Alamo, Devil Canyon, Mojave Siphon, and Warne—totaled 1.74 million MWh. The SWP share of energy generated at the coal-fired Reid Gardner Unit 4 in Nevada totaled 1.58 million MWh of energy.

DWR sold 2.15 million MWh of energy to 20 utilities and 22 power marketers, for total revenues of \$148.62 million in 2005. DWR also received \$33.50 million in revenues for capacity, including \$21.03 million for transactions made through CAISO.

DWR purchased 4.74 million MWh of energy at a cost of \$232.07 million. Other SWP power costs, including transmission, operation, maintenance, and CAISO ancillary services totaled \$123.83 million. This amount includes \$4.95 million for debt service and \$3.81 million for operations and maintenance costs at Pine Flat Power Plant. It also includes \$3.42 million for transmission at Reid Gardner Unit 4 and \$59.33 million for costs associated with operations and maintenance, fuel, insurance, and property taxes at Reid Gardner Unit 4.

**Table ES-1. SWP Water Delivered by Category, 1962–2005 (Acre-feet)**

| Year         | Table A Water            |                   |                   | Other SWP Water Deliveries |                  |                          |                                       |                                     |                    |
|--------------|--------------------------|-------------------|-------------------|----------------------------|------------------|--------------------------|---------------------------------------|-------------------------------------|--------------------|
|              | Municipal and Industrial | Agricultural      | Total             | Article 21/Unscheduled     |                  | Other Water <sup>a</sup> | Feather River Diversions <sup>b</sup> | Fish and Wildlife/ Recreation Water | Total Deliveries   |
|              |                          |                   |                   | Municipal and Industrial   | Agricultural     |                          |                                       |                                     |                    |
|              | (1)                      | (2)               | (3)               | (4)                        | (5)              | (6)                      | (7)                                   | (8)                                 | (9)                |
| 1962         | ---                      | ---               | ---               | ---                        | ---              | 18,289                   | ---                                   | ---                                 | 18,289             |
| 1963         | ---                      | ---               | ---               | ---                        | ---              | 22,456                   | ---                                   | ---                                 | 22,456             |
| 1964         | ---                      | ---               | ---               | ---                        | ---              | 32,507                   | ---                                   | ---                                 | 32,507             |
| 1965         | ---                      | ---               | ---               | ---                        | ---              | 44,105                   | ---                                   | ---                                 | 44,105             |
| 1966         | ---                      | ---               | ---               | ---                        | ---              | 67,928                   | ---                                   | ---                                 | 67,928             |
| 1967         | 5,747                    | 5,791             | 11,538            | 0                          | 0                | 53,605                   | ---                                   | ---                                 | 65,143             |
| 1968         | 46,472                   | 125,237           | 171,709           | 10,000                     | 111,534          | 14,777                   | 866,926                               | ---                                 | 1,174,946          |
| 1969         | 34,434                   | 158,586           | 193,020           | 0                          | 72,397           | 18,829                   | 794,374                               | ---                                 | 1,078,620          |
| 1970         | 47,996                   | 185,997           | 233,993           | 0                          | 133,024          | 38,080                   | 759,759                               | ---                                 | 1,164,856          |
| 1971         | 85,286                   | 272,054           | 357,340           | 2,400                      | 293,619          | 44,119                   | 778,362                               | 8                                   | 1,475,848          |
| 1972         | 181,066                  | 430,735           | 611,801           | 22,205                     | 401,759          | 66,638                   | 817,398                               | 6,489                               | 1,926,290          |
| 1973         | 293,824                  | 400,564           | 694,388           | 3,161                      | 293,255          | 42,511                   | 800,743                               | 1,155                               | 1,835,213          |
| 1974         | 418,521                  | 455,556           | 874,077           | 4,753                      | 412,923          | 46,224                   | 911,613                               | 2,118                               | 2,251,708          |
| 1975         | 641,621                  | 582,369           | 1,223,990         | 21,043                     | 601,859          | 63,793                   | 862,218                               | 3,377                               | 2,776,280          |
| 1976         | 818,588                  | 554,414           | 1,373,002         | 32,488                     | 547,622          | 115,217                  | 946,440                               | 1,745                               | 3,016,514          |
| 1977         | 280,919                  | 293,236           | 574,155           | 0                          | 0                | 389,065                  | 581,994                               | 1,111                               | 1,546,325          |
| 1978         | 742,385                  | 710,314           | 1,452,699         | 3,566                      | 13,348           | 121,225                  | 786,517                               | 1,691                               | 2,379,046          |
| 1979         | 690,659                  | 969,237           | 1,659,896         | 66,081                     | 582,308          | 187,630                  | 882,549                               | 1,766                               | 3,380,230          |
| 1980         | 730,545                  | 799,204           | 1,529,749         | 19,722                     | 384,835          | 46,459                   | 875,045                               | 2,131                               | 2,857,941          |
| 1981         | 1,057,273                | 852,289           | 1,909,562         | 12,000                     | 896,428          | 279,161                  | 838,557                               | 4,688                               | 3,940,396          |
| 1982         | 928,721                  | 821,303           | 1,750,024         | 0                          | 215,873          | 154,882                  | 776,330                               | 4,646                               | 2,901,755          |
| 1983         | 483,499                  | 701,370           | 1,184,869         | 0                          | 13,019           | 181,453                  | 602,905                               | 7,849                               | 1,990,095          |
| 1984         | 725,925                  | 862,694           | 1,588,619         | 3,663                      | 259,254          | 381,024                  | 832,332                               | 7,040                               | 3,071,932          |
| 1985         | 992,538                  | 1,002,915         | 1,995,453         | 9,638                      | 298,034          | 404,842                  | 870,008                               | 4,033                               | 3,582,008          |
| 1986         | 998,611                  | 997,025           | 1,995,636         | 2,595                      | 34,025           | 193,606                  | 791,737                               | 3,865                               | 3,021,464          |
| 1987         | 1,096,368                | 1,033,718         | 2,130,086         | 6,949                      | 107,958          | 377,592                  | 831,947                               | 7,672                               | 3,462,204          |
| 1988         | 1,316,820                | 1,068,302         | 2,385,122         | 0                          | 0                | 507,076                  | 794,834                               | 4,889                               | 3,691,921          |
| 1989         | 1,602,454                | 1,251,293         | 2,853,747         | 0                          | 0                | 474,559                  | 830,500                               | 8,135                               | 4,166,941          |
| 1990         | 1,876,072                | 706,079           | 2,582,151         | 0                          | 90               | 424,697                  | 875,099                               | 9,262                               | 3,891,299          |
| 1991         | 536,669                  | 12,444            | 549,113           | 3,521                      | 0                | 551,051                  | 565,395                               | 4,879                               | 1,673,959          |
| 1992         | 961,649                  | 509,805           | 1,471,454         | 1,156                      | 0                | 144,789                  | 613,978                               | 2,605                               | 2,233,982          |
| 1993         | 1,064,866                | 1,250,369         | 2,315,235         | 0                          | 0                | 254,854                  | 822,589                               | 2,609                               | 3,395,287          |
| 1994         | 1,134,992                | 614,359           | 1,749,351         | 48,150                     | 64,475           | 236,739                  | 874,018                               | 8,200                               | 2,980,933          |
| 1995         | 801,570                  | 1,165,523         | 1,967,093         | 17,984                     | 46,346           | 78,425                   | 860,077                               | 2,575                               | 2,972,500          |
| 1996         | 1,145,638                | 1,369,187         | 2,514,825         | 12,091                     | 16,556           | 251,391                  | 934,997                               | 3,907                               | 3,733,767          |
| 1997         | 1,258,456                | 1,067,319         | 2,325,775         | 2,814                      | 18,618           | 322,000                  | 993,211                               | 4,146                               | 3,666,564          |
| 1998         | 864,795                  | 860,724           | 1,725,519         | 9,982                      | 10,306           | 134,682                  | 872,738                               | 2,108                               | 2,755,335          |
| 1999         | 1,405,299                | 1,333,592         | 2,738,891         | 61,191                     | 96,879           | 85,312                   | 1,108,672                             | 4,324                               | 4,095,269          |
| 2000         | 2,022,703                | 1,177,974         | 3,200,677         | 170,302                    | 138,483          | 332,654                  | 1,085,886                             | 4,030                               | 4,932,032          |
| 2001         | 1,162,897                | 383,845           | 1,546,742         | 10,261                     | 33,174           | 535,160                  | 1,078,656                             | 2,929                               | 3,206,922          |
| 2002         | 1,808,017                | 765,013           | 2,573,030         | 15,478                     | 27,637           | 309,094                  | 1,132,938                             | 3,694                               | 4,061,871          |
| 2003         | 2,118,150                | 782,891           | 2,901,041         | 23,019                     | 36,809           | 251,447                  | 1,008,093                             | 2,846                               | 4,223,255          |
| 2004         | 1,950,407                | 649,129           | 2,599,536         | 103,890                    | 114,606          | 385,088                  | 1,174,672                             | 2,865                               | 4,380,657          |
| 2005         | 1,959,162                | 869,244           | 2,828,406         | 199,834                    | 531,249          | 96,932                   | 1,074,706                             | 1,506                               | 4,732,633          |
| <b>Total</b> | <b>36,291,614</b>        | <b>28,051,700</b> | <b>64,343,314</b> | <b>899,937</b>             | <b>6,808,302</b> | <b>8,781,967</b>         | <b>32,908,813</b>                     | <b>136,893</b>                      | <b>113,879,226</b> |

<sup>a</sup> Includes water conveyed for SWP and non-SWP water contractors.<sup>b</sup> Includes amounts of water diverted according to various water rights agreements.

## State Water Project Power Generation and Consumption in 2005

| <b>Power Generation and Consumption</b>                                    | Millions of Megawatt Hours |
|----------------------------------------------------------------------------|----------------------------|
| Energy generation by SWP facilities                                        | 5.151                      |
| Energy sources and firm purchases under long-term agreements and exchanges | 5.367                      |
| <b>Total Energy Available to the SWP</b>                                   | <b>10.518</b>              |
| Energy sales                                                               | (2.210)                    |
| <b>Net Power Consumption of the SWP</b>                                    | <b>8.308</b>               |

The sidebar above shows 2005 power generation and consumption.

### Oroville Facilities Relicensing

The existing 50-year term FERC hydropower license, Project Number 2100 for operation of the Oroville Facilities, will expire January 31, 2007. To obtain a new license, DWR must file a new application with FERC by January 31, 2005.

On January 26, 2005, DWR submitted its Application for New License for the Oroville Facilities with FERC. On September 12, 2005, following DWR's successful compliance with FERC's May 2005 Additional Information Request, FERC accepted DWR's Application for a New License for operating the Oroville Facilities. FERC's acceptance of DWR's license application marked the conclusion of the multiyear collaborative Alternative Licensing Process (ALP) involving federal and State agencies, Indian tribes, local agencies, environmental organizations, and other interested parties that worked to assist DWR in completing a comprehensive license application and accompanying

Preliminary Draft Environmental Assessment (PDEA). While this procedurally completed the ALP phase of FERC relicensing, settlement negotiations and completion of all federal and State environmental documentation was still ongoing at the end of 2005 in pursuit of a new FERC license at the Oroville Facilities.

During 2005, primary achievements included:

- completing all 165 technical reports resulting from the 72 collaboratively developed and approved study plans. These roughly 40,000 pages of supporting documentation were submitted to FERC in support of DWR's application for license;
- completing a package of responses addressing deficiencies, clarifications, additional information requests, and revisions to the January 2005 license application;
- receiving notification that the Oroville Facilities New License Application was accepted for filing by FERC;

- submitting the application for water quality certification to the State Water Resources Control Board;
- continuing settlement agreement negotiations meetings with Indian tribes, Butte County, local governmental agencies, State and federal agencies, and other interested stakeholders; and
- continuing to prepare and update the recreation management plan submitted with the Application for License to reflect additional enhancements derived from the Settlement Agreement negotiations.

As an interim settlement activity, DWR obtained approval to provide \$3 million to the Feather River Recreation and Park District to fund recreation improvements at Riverbend Park in Oroville through calendar year 2007.

The following SWP facilities will be subject to new license terms and conditions:

- Oroville Dam and Reservoir;
- Hyatt Pumping-Generating Plant;
- Thermalito Pumping-Generating Plant;
- Thermalito Diversion Dam Power Plant;
- Thermalito Diversion Dam;
- Fish Barrier Dam;
- Feather River Fish Hatchery;
- Thermalito Power Canal;
- Thermalito Forebay; and
- Thermalito Afterbay.

## Financial Analysis

In 2005, DWR continued to pay bondholders as scheduled. The SWP was financially viable and was indirectly paid for by the approximately 24 million water

users who were served by the project. Direct payment was through the 29 long-term water contractors. In 2005, the SWP handled approximately \$789 million in revenues and \$789 million in expenses. The sidebar on page 9 shows the 2005 income statement for the SWP.

## California Water Plan Update 2005

On April 13, 2005, DWR released the public review draft of the *California Water Plan Update 2005*, a proposed strategic plan to meet the State's water needs through 2030.

*California Water Plan Update 2005* is the product of unprecedented public input from a 65-member advisory committee representing agriculture, urban water districts, businesses, environmentalists, Native Americans, environmental justice advocacy, cities, counties, federal and State agencies, the California Bay-Delta Authority, academia, and different regions of California. The plan also incorporates input from a 350-member extended review forum, and more than 2,000 interested members of the public.

For the first time, the *California Water Plan* includes a short- and long-term implementation strategy, and details 25 actions, such as water conservation and recycling, conjunctive management and groundwater storage, surface storage and conveyance, system reoperation and water transfers, and desalination; as well as other strategies.

Public hearings on the review draft were held in June, and the final *California Water Plan Update 2005* and the *Water Plan Highlights* briefing book were completed in December 2005.

## 2005 Income Statement for the State Water Project

| Revenues                                                | Thousands of Dollars |
|---------------------------------------------------------|----------------------|
| Water Contract Payments                                 | 836,533              |
| Revenue Bond Cover Adjustments                          | (37,121)             |
| Rate Management Adjustments                             | (36,584)             |
| Other Revenues                                          | 26,513               |
| <b>Total Operating Revenues</b>                         | <b>789,341</b>       |
| <b>Expenses</b>                                         |                      |
| Project Operations, Maintenance, Power, and Replacement | 571,073              |
| Deposits to Reserves                                    | (39,719)             |
| Water Bond Principal                                    | 108,282              |
| Water Bond Interest                                     | 149,705              |
| <b>Total Operating Expense and Debt Service</b>         | <b>789,341</b>       |
| <b>Net System Revenues</b>                              | <b>0</b>             |

DWR first published the *California Water Plan* in 1957 and has updated it eight times in the Bulletin 160 series.

is being prepared. The draft EIR is expected to be released in 2007.

## Monterey Amendment

The Monterey Amendment, based on Principles of Agreement released on December 16, 1994, was designed to increase the reliability of existing water supplies, provide stronger financial management for the SWP, and increase water management flexibility by providing more tools for local water agencies. In accordance with terms of the May 5, 2003, Monterey Settlement Agreement, the SWP continues to operate pursuant to the Monterey Amendments while the new EIR

## Delta Resources and Environmental Issues

The 738,000-acre Delta is the heart of California's water environment. The Delta, at the convergence of the Sacramento and San Joaquin rivers, is a network of islands, sloughs, marshes, and reclaimed farmland that stretches from Sacramento to San Francisco Bay. A source of drinking water for about two-thirds of California's population, the Delta also provides irrigation for the Central Valley. The State Water Resources Control Board has adopted water quality control plans and policies to protect the Delta's water quality

and ecosystem while at the same time maintaining SWP water supply reliability.

### **California Bay-Delta Authority**

The California Bay-Delta Act of 2003 established the California Bay-Delta Authority as a new governance structure. The Authority oversees the 25 State and federal agencies working cooperatively through the CALFED Bay-Delta Program to improve the quality and reliability of California's water supplies while restoring the Bay-Delta ecosystem. The Authority is charged with tracking and assessing the CALFED Bay-Delta Program progress, using sound science, providing accountability and ensuring balanced implementation of the program, assuring public involvement and outreach, and coordinating and integrating related government programs.

### **Environmental Water Account**

The Environmental Water Account (EWA) is designed to provide water at critical times to meet environmental needs while providing water supply reliability to SWP and CVP water users. To do that, EWA buys water from willing sellers or diverts surplus water when safe for fish. EWA then banks, stores, conveys, and releases the water as needed to protect fish and compensate water users.

In 2005, EWA's fifth operational year, exports were periodically curtailed at the SWP and CVP export facilities between December 15, 2004, and June 8, 2005. These actions resulted in an EWA debt of about 328,681 af at the SWP (December—4,163 af; February—33,967 af; April—121,888 af; May—133,997 af; June—34,666 af) and 11,400 af at the CVP in February.

During water year 2005, DWR and Reclamation acquired 171,917 af and 28,568 af, respectively, in operational assets and 154,560 af of purchase assets through contract agreements. All purchase asset acquisitions in 2005 were made by DWR and were covered under the EWA environmental impact statement/ environmental impact report (EIS/ EIR) in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). A source shift was not implemented because there was no risk of a low-point problem at San Luis Reservoir.

In fall 2004, EWA carried a debt of 14,927 af to water year 2005. EWA ended with no debt at the end of December 2005.

### **North Delta Program**

The North Delta Program is part of CALFED's Conveyance Program. Three North Delta conveyance facilities improvements are being evaluated. One is to improve operational procedures for the Delta Cross Channel (DCC) to address fishery and water quality concerns; the second is a screened Through-Delta Facility on the Sacramento River; and the third is the Franks Tract Project, which involves installation of operable gates either on Three Mile Slough or West False River to improve water quality and benefit fisheries. DWR is leading all three studies in cooperation with other agencies. DWR is in the process of initiating the preparation of an EIR/EIS for the Franks Tract Project.

In 2005, projects relating to the DCC Reoperation Project and Through-Delta Facility were limited to completing analyses and writing reports on field work. These activities included reevaluating project funding and schedules. For

example, the Flooded Islands Pre-Feasibility Study, initiated in April 2004, to develop and evaluate conceptual alternatives for modifying Franks Tract, Lower Sherman Lake, and Big Break was completed in June 2005. It provides conceptual modification alternatives on the three flooded islands, with their respective benefits and costs.

The Franks Tract 2005 modifications study showed significant Delta water quality improvements—at a relatively modest cost. This study recommends that operations of the proposed gates are refined for these alternatives to optimize water quality benefits. The report also recommends conducting a pilot project to evaluate, implement, and demonstrate the effectiveness and impacts of the facility before considering a full-scale project. Subsequently, in 2006 and 2007, DWR will continue to refine and evaluate the operation and design of several pilot project alternatives in the Franks Tract area. The scope of the proposed pilot project is currently under development. In mid-2007, an EIR/EIS will be initiated for the pilot project.

### ***South Delta Improvements Program***

The South Delta Improvements Program (SDIP) is the second component of CALFED's Conveyance Program. The purpose of SDIP is to do the following:

- improve the reliability of existing SWP facilities;
- ensure that water of adequate quantity and quality is available for diversion to the South Delta Water Agency's service area for beneficial use; and
- reduce the effects of SWP exports on both aquatic resources and direct losses of fish in the South Delta.

In November 2005, a draft EIS/EIR was released for the SDIP. The decision to proceed with the proposed project addresses a precipitous decline in the populations of pelagic (open water) fish in the Bay-Delta environment. One of the fish species is the delta smelt, which is an endangered fish. Stage 1 addresses the physical and structural component of the program, which is not expected to affect fish populations. Stage 2 is the operational component of the program. This stage will increase water deliveries and delivery reliability by increasing the Clifton Court Forebay diversion limit to 8,500 cfs. Only Stage 1 is being sought at this time, while Stage 2 is being deferred. Stage 1 of the SDIP includes the construction and operation of the following projects:

- three permanent operable gates to improve local water levels and circulation in South Delta channels;
- one permanent operable gate to prevent straying of salmon migrating to the San Joaquin River;
- extensive dredging in the South Delta to improve channel capacity for local agricultural users; and
- modifications to existing agricultural diversion intakes.

Several ways of operating the Clifton Court Forebay diversion at 8500 cfs are available, but a preferred operation is not identified in the draft EIR/EIS. DWR is committed to issuing a supplemental environmental document on Stage 2, and circulating this document for a minimum of 45 days, prior to making any decisions.



## **Status of Threatened or Endangered Species Listings**

### ***Delta Export Curtailment***

SWP and CVP operated under a new Delta Smelt Biological Opinion in 2005, which was signed in August 2004. This biological opinion set new incidental take limits, based on the most recent 10 years of data (1993–2003). The new take limits are based on two categories of water year type: wet or above normal and below normal, dry, or critical. The Delta Smelt Risk Assessment Matrix (DSRAM) adult concern level is set at 892, and the reconsultation level varies by month, ranging from 100 to 44,800. When the incidental take is exceeded, a team of interagency scientists, known as the Delta Smelt Working Group, will convene a meeting to review smelt distribution, abundance, projected project operations, and other information. This work group will recommend any actions that should be taken to reduce salvage.

On January 24, 2005, the incidental take of pre-spawning adult delta smelt at SWP and CVP exceeded the concern level of 892. The Delta Smelt Working Group met to discuss possible actions. As a result, combined exports were reduced to 3,000 cfs for seven days.

In 2005, 2,922 delta smelt were salvaged by SWP and 818 were salvaged by CVP. These fish compare to 20,470 delta smelt salvaged at both facilities in 2004.

### **Pelagic Organism Decline in the Upper San Francisco Estuary**

There have been marked declines of numerous pelagic fishes in the upper San Francisco Estuary. The major resident pelagic fishes sampled in the upper estuary

include delta smelt, longfin smelt, striped bass, and threadfin shad. Historically, low populations of these fishes have been the result of dry years, such as the drought in 1987–1992. Abundance indices for 2002–2005 indicate record and near-record lows for these populations, which are unexpected given the moderate winter-spring flows of the past several years. In response to the Pelagic Organism Decline (POD), the Interagency Ecological Program (IEP) formed a work team to evaluate the potential causes. An interdisciplinary, multiagency research effort was undertaken in 2005 to identify the most likely causes of the POD. The overall approach was based on a “triage” model to identify the most likely causes and assign priorities to projects, based on funding and resources. The 2005 work fell into four general types: an expansion of existing monitoring; analysis of existing data; new studies; and ongoing studies. A conceptual model was developed to describe possible mechanisms, by which a combination of long-term and recent changes in the ecosystem could produce the observed declines in the abundance indices.

Possible stressors influencing the POD included entrainment, toxic effects on fish, toxic effects on fish food, harmful algal blooms, clam effects on food availability, disease, and parasites. Narrative explanations in the context of long-term trends have been developed for four major components: (1) prior fish abundance—which describes how the continued low abundance of adults leads to reduced juvenile production; (2) habitat—which describes how water quality variables, including contaminants and toxic algal blooms, affect estuarine species; (3) top-down effects—which posit that predation and water project entrainment affect mortality rates; and (4) bottom-up effects—

which focus on how food web interactions in Suisun Bay and the West Delta have affected fish abundance. These narrative explanations will be developed for 2006–2007 to cover each component of the conceptual model.

## Flood Protection

### Arroyo Pasajero

The Arroyo Pasajero and its tributaries drain the coastal mountains west of the California Aqueduct in Fresno County. During heavy rainfall, high flows in the Arroyo Pasajero carry heavy sediment loads. Over eons, this flood sediment has formed an alluvial fan that extends from Tulare Lake to Fresno Slough. The alluvial fan is traversed by the California Aqueduct, which forms a barrier to Arroyo flood flows. Flood control facilities constructed to solve this problem include the West Side Detention Basin, designed to store floodwaters and sediment, an evacuation culvert to release floodwaters east of the California Aqueduct, and drain inlets to release floodwaters into the California Aqueduct. Since the floods of 1969, when nearly all the West Side Detention Basin's planned 50-year sediment storage space was filled, DWR and Reclamation have worked to minimize the effects of heavy flooding. In 1990, DWR asked the U.S. Army Corps of Engineers to help identify solutions to the Arroyo Pasajero flooding and sediment problems. Two candidate plans were prepared and released to the public in 1999; however, due to prohibitive costs, neither plan was adopted. Since then, DWR and Reclamation have been working on an alternate plan. This plan would rely on increased storage in the existing West Side Detention Basin, possibly combined with a reservoir to be constructed in the western Tulare

Lakebed east of the California Aqueduct. The State Water Contractors asked DWR to develop the least costly alternative that would still provide a 100-year level of flood protection to the California Aqueduct. In 2004, DWR finished its feasibility investigation into a more cost-effective plan and proceeded with final design, environmental documentation, and other procedural steps leading to construction. Construction started in fall 2004 and included implementing improvements to increase the storage capacity of the West Side Detention Basin. The plan also included both adding new and improving the existing flood control structures.

### Security Measures for the State Water Project after September 11, 2001

Security and protection of the SWP is a primary goal for DWR. Since September 2001, DWR has taken action to further increase security, regulate access, and closely monitor activities at SWP facilities and DWR's offices. For example, SWP operations are monitored more closely now, and staff exercise vigilance in maintaining a secure environment. Security patrols are more frequent and planning is in place to address potential or actual acts of terrorism. Improvements to existing security systems are ongoing and done in conjunction with Reclamation and other federal and State agencies. In 2005, DWR continued to implement recommended actions from a security assessment completed by an independent consultant in 2004. While DWR does not discuss details of its security program, it does coordinate very closely on security issues and emergency preparedness with federal and State public safety and law enforcement agencies, Reclamation,

utilities, regional and municipal water entities, and others.

## **SWP Milestones through the Decades**

### **Forty Years Ago – 1965**

Construction begins on the Edmonston Pumping Plant, the largest pumping facility of the State Water Project. Edmonston lifts water almost 2,000 feet up and over the Tehachapi Mountains into Southern California. At peak capacity, the plant pumps almost 2 million gallons a minute through 10 miles of pipeline across the Tehachapi Mountains.

### **Thirty Years Ago – 1975**

Governor Edmund G. Brown, Jr. appoints Ronald E. Robie, an attorney and legislative consultant on water law and policy, as DWR Director. Robie serves until 1983.

### **Twenty Years Ago – 1985**

In March 1985, a groundbreaking ceremony is held for the North Bay Aqueduct, Phase Two.

### **Ten Years Ago – 1995**

DWR relocates operational headquarters for the SWP from the Resources Building in downtown Sacramento to a renovated building north of downtown. The new Joint Operations Center is shared with Reclamation, operators of the CVP, and the National Weather Service, a partner in DWR's new Flood Center.



## Chapter 1

# The State Water Project

**T**he State Water Project is the largest state-built, multipurpose water project in the country.



**I**nformation in this chapter was contributed by the Division of Operations and Maintenance and the State Water Project Analysis Office.

California's diverse geography contains both the highest and lowest elevations in the coterminous United States, with a resulting diversity of climate that ranges from desert to alpine to subtropical. In a typical year, some areas receive as little as 2 inches of rain, while others receive more than 100 inches. This diversity of geography and climate creates an intricate and constantly changing pattern of water supplies, which, in turn, creates enormous challenges in managing this vital resource.

Like present-day Californians, the earliest settlers faced the problem of how best to conserve, control, and deliver water. Remains of aqueducts, canals, and dams are still found near some of California's original missions. The first recorded aqueduct was 6 miles long; it was built in 1770 to serve the San Diego mission. In the early twentieth century, several cities—San Francisco and Los Angeles among them—built aqueducts to convey water from the Sierra Nevada to other parts of the State.

In 1951, after many years of discussion and study, the Legislature authorized construction of a water storage and supply system to capture and store runoff in Northern California and deliver it to areas of need throughout the State. Eight years later, the Legislature passed the Burns-Porter Act, which provided the mechanism for obtaining funds necessary to construct the initial facilities. In 1960, California voters approved an issue of \$1.75 billion in general obligation bonds, as authorized in the act, thereby obtaining funds to build the State Water Project (SWP). In 1962, the first water was delivered through a portion of the South Bay Aqueduct to two long-term contracting agencies in Alameda County.

Today the SWP, managed by the Department of Water Resources (DWR), is the largest state-built, multipurpose water project in the country. It was designed and built to deliver water, control floods, generate power, provide recreational opportunities, and enhance habitat for fish and wildlife. SWP water irrigates about 750,000 acres of farmland, mainly in the south San Joaquin Valley. About 24 million of California's estimated 36 million residents benefit from SWP water.

## Precipitation and Runoff

The water stored and delivered by the SWP originates from rainfall and snowmelt runoff in Northern and Central California's watersheds, where most of the State's precipitation occurs.

Since 1968, DWR has monitored and recorded annual precipitation and runoff, because precipitation, snowpack, and the rate and amount of snowmelt help determine how much water the SWP can deliver in any given year. The water year, as designated by DWR, is October 1 through September 30.

## Water Delivery Facilities

The SWP depends on a complex system of dams, reservoirs, power plants, pumping plants, canals, and aqueducts to deliver water. Although initial transportation facilities were essentially completed in 1973, other facilities have since been built, and still others are either under construction or are planned to be built, as needed.

The SWP facilities include 25 dams and reservoirs, 29 pumping and generating plants, and approximately 700 miles of aqueducts in total. Figure 1-1 shows the names and locations of primary water delivery facilities.

Existing long-term SWP water supply contracts call for the annual delivery of up to 4,125,686 af of Table A water during 2005 through SWP facilities, gradually increasing to a maximum of up to 4,172,786 af by 2021. Some changes have occurred since the long-term water contracts were signed in the 1960s. These changes include population growth variations, differences in local use, local water conservation programs, and conjunctive-use programs. The SWP delivered 2,828,406 af of approved Table A water to long-term contractors' service areas in 2005. Demands for SWP water are expected to increase as California's population continues to grow.

## Project Design

Water from rainfall and snowmelt runoff is stored in SWP conservation facilities and delivered via SWP transportation facilities to water agencies and districts in the Southern California, Central Coastal, San Joaquin Valley, South Bay, North Bay, and Upper Feather River areas.

Three small reservoirs—Lake Davis, Frenchman Lake, and Antelope Lake—are the northernmost SWP facilities. Situated on Feather River tributaries in Plumas County, these lakes are used primarily for recreation. They also provide water to the City of Portola and local agencies that have water rights agreements with DWR.

Downstream from these three lakes lies Lake Oroville, the keystone of the SWP. Lake Oroville conserves water from the Feather River watershed. Created by Oroville Dam, the tallest earthfill dam in the Western Hemisphere, Lake Oroville is the project's largest storage facility, with a capacity of about 3.5 million af (an acre-foot is about 326,000 gallons).

Releases from Lake Oroville flow down the Feather River into the Sacramento River, which drains the northern portion of California's great Central Valley. The Sacramento River flows into the Sacramento-San Joaquin Delta, comprised of 738,000 acres of land interlaced with channels that receive runoff from 40 percent of the State's land area. The SWP, federal Central Valley Project (CVP), and local agencies all divert water from the Delta.

From the northern Delta, Barker Slough Pumping Plant diverts water for delivery to Napa and Solano counties through the North Bay Aqueduct, which was completed in 1988. Near Byron, in the southern Delta, the SWP diverts water into Clifton Court Forebay for delivery south of the Delta. Banks Pumping Plant lifts water from Clifton Court Forebay into the California Aqueduct, which flows to Bethany Reservoir. From Bethany Reservoir, the South Bay Pumping Plant lifts water into



**Figure 1-1. Names and Locations of Primary Water Delivery Facilities, December 31, 2005**



the South Bay Aqueduct to supply Alameda and Santa Clara counties. The South Bay Aqueduct provided initial deliveries in 1962 and has been fully operational since 1965.

Most of the water delivered to Bethany Reservoir from Banks Pumping Plant flows into the California Aqueduct. This 444-mile-long main aqueduct conveys water to the agricultural lands of the San Joaquin Valley and the urban regions of Southern California.

The California Aqueduct winds along the west side of the San Joaquin Valley. It transports water to O'Neill Forebay, Gianelli Pumping-Generating Plant, and San Luis Reservoir. San Luis Reservoir has a storage capacity of more than 2 million af and is jointly owned by DWR and the Bureau of Reclamation (Reclamation). DWR's share of gross storage in the reservoir is about 1,062,000 af. Generally, water is pumped into San Luis Reservoir during late fall through early spring, where it is temporarily stored for release back to the California Aqueduct to meet summertime peaking demands of SWP and CVP contractors.

SWP water not stored in San Luis Reservoir, as well as water eventually released from San Luis, flow south through the San Luis Canal, a portion of the California Aqueduct jointly owned by DWR and Reclamation.

As the water flows through the San Joaquin Valley, numerous turnouts convey the water to farmlands within the service areas of the SWP and CVP. Along its journey, water is lifted more than 1,000 feet by four pumping plants—Dos Amigos, Buena Vista, Teerink, and Chrisman—before

reaching the foot of the Tehachapi Mountains.

In the San Joaquin Valley, near Kettleman City, Phase I of the Coastal Branch Aqueduct serves agricultural areas west of the California Aqueduct. In August 1997, completion of Phase II extended this branch to serve municipal and industrial water users in San Luis Obispo and Santa Barbara counties.

The remaining water conveyed by the California Aqueduct is delivered to Southern California, which is home to about two-thirds of California's population. Before this water can be delivered, it must first cross the Tehachapi Mountains. Pumps at Edmonston Pumping Plant, situated at the foot of the mountains, raise the water 1,926 feet—the highest single lift of any pumping plant in the world. The water enters 8.5 miles of tunnels and siphons as it flows into Antelope Valley, where the California Aqueduct divides into two branches: the East Branch and the West Branch.

The East Branch carries water through Alamo Power Plant, Pearblossom Pumping Plant, and Mojave Siphon Power Plant into Silverwood Lake in the San Bernardino Mountains. From Silverwood Lake, water flows through the San Bernardino Tunnel into Devil Canyon Power Plant. Water continues down the East Branch through the Santa Ana Pipeline to Lake Perris, the southernmost SWP reservoir.

The East Branch Extension is a nearly 33-mile pipeline linking parts of service areas for San Bernardino Valley Municipal Water District and San Geronio Pass Water Agency to the California Aqueduct. The East Branch Extension, Phase I, carries water from Devil Canyon Power Plant

Afterbay to Cherry Valley, bringing water to Yucaipa, Calimesa, Beaumont, Banning, and other communities. Phase II, when completed, will assist with delivery.

Water in the West Branch flows through Oso Pumping Plant, Quail Lake, and then through Warne Power Plant into Pyramid Lake in Los Angeles County. From there it flows through the Angeles Tunnel, Castaic Power Plant, Elderberry Forebay, and into Castaic Lake, terminus of the West Branch. Castaic Power Plant is operated by the Los Angeles Department of Water and Power.

The energy needed to operate the SWP, the largest single user of electrical power in California, comes from a combination of its own hydroelectric and coal-fired generation plants and power purchased and exchanged from other utilities. The coal-fired plant and the project's eight hydroelectric power plants, including three pumping-generating plants, produce enough electricity in a normal year to supply about two-thirds of the necessary operating power.

Tables 1-1 through 1-5 present statistical information about primary reservoirs, primary dams, pumping plants, power plants, and aqueducts. Additional information regarding operation of the plants under full development can be found in Chapter 10.

## Additional Construction

SWP aqueduct facilities were initially designed and constructed to provide service to all agencies to meet their water delivery needs up to 1990. Project water conservation reservoirs were planned to be constructed in stages as water demands

increased. Oroville and San Luis were the first SWP conservation reservoir facilities constructed. Additional SWP facilities were scheduled to meet increased demands. It was anticipated that population growth in delivery service areas and water supply areas of origin would influence the final schedule for the additional SWP facilities. However, increased costs, environmental issues, and increased non-SWP demands for limited water supplies delayed the construction schedule for some of the planned additional facilities.

**Table 1-1. Physical Characteristics of Primary Storage Facilities**

| Facility                  | Gross Capacity at Absolute Maximum Elevation (Acre-feet) | Surface Area (Acres) | Shore-line (Miles) |
|---------------------------|----------------------------------------------------------|----------------------|--------------------|
| Antelope Lake             | 22,600                                                   | 930                  | 15                 |
| Frenchman Lake            | 55,500                                                   | 1,580                | 21                 |
| Lake Davis                | 84,400                                                   | 4,030                | 32                 |
| Lake Oroville             | 3,537,600                                                | 15,800               | 167                |
| Thermalito Forebay        | 11,800                                                   | 630                  | 10                 |
| Thermalito Afterbay       | 57,000                                                   | 4,300                | 26                 |
| Thermalito Diversion Pool | 13,400                                                   | 320                  | 10                 |
| Clifton Court Forebay     | 31,300                                                   | 2,180                | 8                  |
| Bethany Reservoir         | 5,100                                                    | 180                  | 6                  |
| Lake del Valle            | 77,100                                                   | 1,060                | 16                 |
| San Luis Reservoir        | 2,027,800                                                | 12,520               | 65                 |
| SWP storage, 1,062,180 af |                                                          |                      |                    |
| O'Neill Forebay           | 56,100                                                   | 2,700                | 12                 |
| SWP storage, 29,500 af    |                                                          |                      |                    |
| Los Banos Reservoir       | 34,600                                                   | 620                  | 12                 |
| Little Panoche Reservoir  | 5,580                                                    | 190                  | 6                  |
| Quail Lake                | 7,600                                                    | 290                  | 3                  |
| Pyramid Lake              | 171,200                                                  | 1,300                | 21                 |
| Elderberry Forebay        | 32,500                                                   | 500                  | 7                  |
| Castaic Lake              | 323,700                                                  | 2,240                | 29                 |
| Silverwood Lake           | 75,000                                                   | 980                  | 13                 |
| Lake Perris               | 131,500                                                  | 2,320                | 10                 |

**Table 1-2. Physical Characteristics of Primary Dams**

| Facility                 | Crest Elevation (Feet) | Structural Height (Feet) | Crest Length (Feet) | Structural Volume (Thousands Cubic Yards) |
|--------------------------|------------------------|--------------------------|---------------------|-------------------------------------------|
| Antelope                 | 5,025                  | 120                      | 1,320               | 380                                       |
| Frenchman                | 5,607                  | 139                      | 720                 | 537                                       |
| Grizzly Valley           | 5,785                  | 132                      | 800                 | 253                                       |
| Oroville                 | 922                    | 770                      | 6,920               | 80,000                                    |
| Thermalito Diversion     | 233                    | 143                      | 1,300               | 154                                       |
| Thermalito Forebay       | 231                    | 91                       | 15,900              | 1,840                                     |
| Thermalito Afterbay      | 142                    | 39                       | 42,000              | 5,020                                     |
| Clifton Court Forebay    | 14                     | 30                       | 36,500              | 2,440                                     |
| Bethany                  | 250                    | 121                      | 3,940               | 1,400                                     |
| Del Valle                | 773                    | 235                      | 880                 | 4,180                                     |
| Sisk                     | 554                    | 385                      | 18,600              | 77,645                                    |
| O'Neill                  | 233                    | 88                       | 14,350              | 3,000                                     |
| Los Banos Detention      | 384                    | 167                      | 1,370               | 2,100                                     |
| Little Panoche Detention | 676                    | 152                      | 1,440               | 1,210                                     |
| Pyramid                  | 2,606                  | 400                      | 1,090               | 6,800                                     |
| Elderberry Forebay       | 1,550                  | 200                      | 1,990               | 6,000                                     |
| Castaic                  | 1,535                  | 425                      | 4,900               | 46,000                                    |
| Cedar Springs            | 3,378                  | 249                      | 2,230               | 7,600                                     |
| Perris                   | 1,600                  | 128                      | 11,600              | 20,000                                    |
| Crafton Hills            | 2,932                  | 95                       | 500                 | 144                                       |

**Table 1-3. Pumping Plant Characteristics**

| Facility                  | Number Of Units      | Normal Static Head (Feet) | Total Flow at Design Head (cfs) | Total Motor Rating (hp) |
|---------------------------|----------------------|---------------------------|---------------------------------|-------------------------|
| Thermalito                | 3 (p-g) <sup>a</sup> | 85-102                    | 9,120                           | 120,000                 |
| Hyatt                     | 3 (p-g) <sup>a</sup> | 500-625                   | 5,610                           | 519,000                 |
| Barker Slough             | 9                    | 95-120                    | 228                             | 4,800                   |
| Cordelia                  | 11                   | 110-376                   | 138                             | 5,600                   |
| Banks                     | 11                   | 236-252                   | 10,670                          | 333,000                 |
| South Bay                 | 9                    | 566                       | 330                             | 27,750                  |
| Del Valle                 | 4                    | 0-38                      | 120                             | 1,000                   |
| Gianelli                  | 8 (p-g) <sup>a</sup> | 99-327                    | 11,000                          | 504,000                 |
| Dos Amigos                | 6                    | 107-125                   | 15,450                          | 240,000                 |
| Las Perillas              | 6                    | 55                        | 461                             | 4,050                   |
| Badger Hill               | 6                    | 151                       | 454                             | 11,750                  |
| Devil's Den <sup>b</sup>  | 6                    | 521                       | 134                             | 10,500                  |
| Bluestone <sup>b</sup>    | 6                    | 484                       | 134                             | 10,500                  |
| Polonio Pass <sup>b</sup> | 6                    | 533                       | 134                             | 10,500                  |
| Buena Vista <sup>b</sup>  | 10                   | 205                       | 5,405                           | 144,500                 |
| Teerink <sup>b</sup>      | 9                    | 233                       | 5,445                           | 150,000                 |
| Chrisman <sup>b</sup>     | 9                    | 518                       | 4,995                           | 330,000                 |
| Edmonston <sup>b</sup>    | 14                   | 1,926                     | 4,480                           | 1,120,000               |
| Oso                       | 8                    | 231                       | 3,252                           | 93,800                  |
| Pearblossom               | 9                    | 540                       | 2,525                           | 203,200                 |
| Greenspot                 | 4                    | 382                       | 50                              | 3,900                   |
| Crafton Hills             | 3                    | 613                       | 40                              | 4,000                   |
| Cherry Valley             | 2                    | 75                        | 16                              | 300                     |

<sup>a</sup>The term p-g indicates pumping-generating units.<sup>b</sup>These plants have one unit in reserve.

**Table 1-4. Power Plant Characteristics, by Type and Facility**

| Type and Facility                    | Number of Units        | Normal Static Head (Feet) | Total Flow at Design Head (cfs) | Net Dependable Capacity | Nameplate Capacity |
|--------------------------------------|------------------------|---------------------------|---------------------------------|-------------------------|--------------------|
| <b>Hydro</b>                         |                        |                           |                                 |                         |                    |
| Thermalito Diversion Dam             | 1                      | 63-77                     | 615                             | 3.3                     | 3.3                |
| Thermalito                           | 4 (3 p-g) <sup>a</sup> | 85-102                    | 17,400                          | 128                     | 126.1              |
| Hyatt                                | 6 (3 p-g) <sup>a</sup> | 410-676                   | 16,950                          | 639                     | 714                |
| Gianelli (total)                     | 8 p-g <sup>a</sup>     | 99-327                    | 16,960                          | 362                     | 424                |
| Alamo                                | 1                      | 115-141                   | 1,740                           | 18                      | 18                 |
| Warne                                | 2                      | 719-739                   | 1,600                           | 76                      | 78.2               |
| Mojave Siphon                        | 3                      | 81-136                    | 2,880                           | 14                      | 30                 |
| Devil Canyon                         | 4                      | 1,406                     | 2,940                           | 235                     | 291                |
| Castaic                              | 7 (6 p-g) <sup>a</sup> | 900-1,050                 | 20,820                          |                         | 1,319.7            |
| <b>Coal</b>                          |                        |                           |                                 |                         |                    |
| Reid Gardner, Unit 4 (total)         | 1 <sup>b</sup>         |                           |                                 | 275                     | 265                |
| SWP share of generation <sup>c</sup> |                        |                           |                                 |                         |                    |

<sup>a</sup> The term p-g indicates pumping-generating units.<sup>b</sup> Life of the plants is expected to extend through 2013.<sup>c</sup> SWP ownership share in Reid Gardner, Unit 4, is 67.8%.**Table 1-5. Total Miles of Aqueducts**

| Facility                                              | Channel and Reservoir | Canal and Siphon | Pipeline and Discharge Line | Tunnel      | Total        |
|-------------------------------------------------------|-----------------------|------------------|-----------------------------|-------------|--------------|
| Grizzly Valley Pipeline                               | 0.0                   | 0.0              | 6.0                         | 0.0         | 6.0          |
| Thermalito Power Canal and Tail Channel               | 1.5                   | 1.9              | 0.0                         | 0.0         | 3.4          |
| North Bay Aqueduct                                    | 0.0                   | 0.0              | 27.6                        | 0.0         | 27.6         |
| South Bay Aqueduct (including Del Valle Branch)       | 0.3                   | 10.7             | 31.9                        | 1.7         | 44.6         |
| <i>Subtotal</i>                                       | <i>1.8</i>            | <i>12.6</i>      | <i>65.5</i>                 | <i>1.7</i>  | <i>81.6</i>  |
| California Aqueduct                                   |                       |                  |                             |             |              |
| Clifton Court Forebay to O'Neill Forebay              | 4.5                   | 61.9             | 0.3                         | 0.0         | 66.7         |
| O'Neill Forebay to Kettleman City                     | 4.1                   | 101.4            | 0.2                         | 0.0         | 105.7        |
| Kettleman City to Edmonston Pumping Plant             | 0.0                   | 120.1            | 0.9                         | 0.0         | 121.0        |
| Edmonston Pumping Plant to Tehachapi Afterbay         | 0.0                   | 0.2              | 1.9                         | 7.9         | 10.0         |
| Tehachapi Afterbay to Lake Perris                     | 4.0                   | 97.8             | 34.3                        | 3.9         | 140.0        |
| <i>Subtotal</i>                                       | <i>12.6</i>           | <i>381.4</i>     | <i>37.6</i>                 | <i>11.8</i> | <i>443.4</i> |
| California Aqueduct Branches                          |                       |                  |                             |             |              |
| Coastal Branch                                        | 0.0                   | 14.1             | 98.7                        | 2.7         | 115.5        |
| West Branch                                           | 9.7                   | 9.3              | 5.8                         | 7.1         | 31.9         |
| East Branch Extension                                 |                       |                  |                             |             |              |
| Devil Canyon Power Plant to Greenspot Pumping Station | 0.0                   | 0.0              | 15.8                        | 0.0         | 15.8         |
| Greenspot Pumping Station to Noble Creek Terminus     | 0.0                   | 0.0              | 13.3                        | 0.0         | 13.3         |
| <i>Subtotal</i>                                       | <i>9.7</i>            | <i>23.4</i>      | <i>133.6</i>                | <i>9.8</i>  | <i>176.5</i> |
| <b>Total</b>                                          | <b>24.1</b>           | <b>417.4</b>     | <b>236.7</b>                | <b>23.3</b> | <b>701.5</b> |

In response to changes in water management policy, DWR continues to reassess plans for the additional facilities that will incorporate increased environmental safeguards while also increasing the SWP delivery yield. Developing these plans involves the time-consuming process of finding technically suitable projects and satisfying the many complex and dynamic environmental procedures, laws, and regulations.

In the mid-1980s, DWR began planning an offstream storage complex, Los Banos Grandes, in Merced County. Initial plans for Los Banos Grandes were completed, but additional planning has been suspended until environmental concerns have been addressed.

DWR also developed alternative methods of storing water, including the Kern Water Bank, a conjunctive-use groundwater storage facility located in Kern County.

The signing of the Monterey Agreement in December 1994 set the principles for permanently transferring the State-owned Kern Fan Element of the Kern Water Bank from DWR to two agricultural contractors, Kern County Water Agency and Dudley Ridge Water District. The transfer occurred August 9, 1996.

DWR continues to plan, design, and construct transportation and power-producing facilities for the SWP. The enlarged Devil Canyon Power Plant and the new Devil Canyon Power Plant Second Afterbay became operational in 1995. Mojave Siphon Power Plant was completed in 1996. Phase II of the Coastal Branch of the California Aqueduct began operation in August 1997. The Coastal Branch can

transport about 50,000 af of water annually to San Luis Obispo and Santa Barbara counties.

## Methods of Financing

Project facilities have been constructed with several general types of financing: general obligation bonds and tideland oil revenues (under the Burns-Porter Act, which was approved by the Legislature in 1959, and the bond issue approved by voters in 1960); revenue bonds; and capital resources revenues. Repayment of these funds, and the operations, maintenance, power, and replacement costs associated with water supply, are paid by the 29 agencies and districts that have long-term contracts with DWR for SWP water. Costs are repaid as debt service on the bonds is due.

The contracts initially provided for a combined maximum annual Table A amount of 4,230,000 af of water supply. As a result of contract amendments in the 1980s and the Monterey Amendment, the current combined maximum annual Table A by 2021 totals 4,172,786 af. The contracts are in effect for the longest of the following periods:

- the project repayment period, which extends to the year 2035;
- 75 years from the date of the contract; or
- the period ending with the latest maturity date of any bond used to finance the construction costs of project facilities.

## Long-Term Contracting Agencies

From 1963 through 1967, 32 agencies or districts signed long-term water supply contracts with DWR. However, in 1965, the City of West Covina was annexed to the Metropolitan Water District of Southern California, and in 1981, Hacienda Water District was assigned to Tulare Lake Basin Water Storage District. On January 1, 1992, Castaic Lake Water Agency assumed all rights and obligations granted to Devil's Den Water District according to its long-term water supply contract. Therefore, only 29 agencies and districts now have long-term contracts with DWR as of December 31, 2005. These 29 are listed in Figure 1-2 and Table 1-6.

Figure 1-2 shows the name and location of each contracting agency and district and lists the first year of SWP delivery service for each. Table 1-6 presents information about each contracting agency.

**Table 1-6. Long-Term Water Supply Contracting Agencies, by Area, as of December 31, 2005**

| Contracting Agency                           | Cumulative Deliveries (Acre-Feet) <sup>a</sup> | Annual Table A (Acre-Feet) | Payments (Dollars)    | Gross Area (Acres)            | Assessed Valuation (Dollars) <sup>b</sup> | Estimated Population |
|----------------------------------------------|------------------------------------------------|----------------------------|-----------------------|-------------------------------|-------------------------------------------|----------------------|
| <b>Upper Feather River Area</b>              |                                                |                            |                       |                               |                                           |                      |
| City of Yuba City                            | 17,158                                         | 9,600                      | 3,770,255             | 5,888                         | 1,680,000,000                             | 47,144               |
| County of Butte                              | 12,923                                         | 1,200                      | 1,080,462             | 1,069,000                     | 13,000,000,000                            | 214,119              |
| Plumas County Flood Control and WCD          | 10,472                                         | 0                          | 1,447,821             | 1,676,056 <sup>c</sup>        | 2,060,744,342                             | 21,200               |
| <i>Subtotal</i>                              | <i>40,553</i>                                  | <i>10,800</i>              | <i>6,298,538</i>      | <i>2,750,944</i>              | <i>16,740,744,342</i>                     | <i>282,463</i>       |
| <b>North Bay Area</b>                        |                                                |                            |                       |                               |                                           |                      |
| Napa County Flood Control and WCD            | 215,830                                        | 22,225                     | 67,690,686            | 510,010                       | 20,782,359,897                            | 132,765              |
| Solano County Water Agency                   | 544,599                                        | 47,256                     | 93,244,608            | 537,600                       | 32,733,946,293                            | 421,657              |
| <i>Subtotal</i>                              | <i>760,429</i>                                 | <i>69,481</i>              | <i>160,935,294</i>    | <i>1,047,610</i>              | <i>53,516,306,190</i>                     | <i>554,422</i>       |
| <b>South Bay Area</b>                        |                                                |                            |                       |                               |                                           |                      |
| Alameda County Flood Control and WCD—Zone 7  | 1,124,978                                      | 80,619                     | 119,370,083           | 275,900                       | 30,029,886,413                            | 191,100              |
| Alameda County WD                            | 1,030,610                                      | 42,000                     | 85,361,945            | 67,072                        | 37,558,158,090                            | 324,796              |
| Santa Clara Valley WD                        | 3,348,193                                      | 100,000                    | 270,119,989           | 849,000                       | 147,074,863,200                           | 1,715,374            |
| <i>Subtotal</i>                              | <i>5,503,781</i>                               | <i>222,619</i>             | <i>474,852,017</i>    | <i>1,191,972</i>              | <i>214,662,907,703</i>                    | <i>2,231,270</i>     |
| <b>San Joaquin Valley Area</b>               |                                                |                            |                       |                               |                                           |                      |
| County of Kings                              | 89,970                                         | 9,000                      | 4,605,001             | 893,300                       | 7,300,545,655                             | 147,729              |
| Castaic Lake Water Agency                    | 468,638                                        | 12,700                     | ---                   | 8,700                         | 4,654,458                                 | 0                    |
| Dudley Ridge WD                              | 1,985,178                                      | 57,343                     | 64,752,959            | 37,568                        | 45,390,000                                | 36                   |
| Empire West Side Irrigation District         | 105,989                                        | 3,000                      | 3,238,607             | 7,400                         | <sup>d</sup>                              | 50                   |
| Kern County Water Agency                     | 30,246,989                                     | 998,730                    | 1,460,535,128         | 5,161,000                     | 58,600,000,000                            | 756,825              |
| Oak Flat WD                                  | 187,876                                        | 5,700                      | 5,187,714             | 4,500                         | <sup>d</sup>                              | 10                   |
| Tulare Lake Basin Water Storage District     | 4,348,958                                      | 96,227                     | 131,856,689           | 189,519                       | 152,288,305                               | 23                   |
| <i>Subtotal</i>                              | <i>37,433,598</i>                              | <i>1,182,700</i>           | <i>1,670,176,098</i>  | <i>6,301,987</i>              | <i>66,102,878,418</i>                     | <i>904,673</i>       |
| <b>Central Coastal Area</b>                  |                                                |                            |                       |                               |                                           |                      |
| San Luis Obispo County Flood Control and WCD | 34,003                                         | 25,000                     | 54,652,638            | 2,122,240                     | 34,023,607,303                            | 255,478              |
| Santa Barbara County Flood Control and WCD   | 196,549                                        | 45,486                     | 331,148,234           | 1,775,296                     | 49,196,921,210                            | 421,625              |
| <i>Subtotal</i>                              | <i>230,552</i>                                 | <i>70,486</i>              | <i>385,800,871</i>    | <i>3,897,536</i>              | <i>83,220,528,513</i>                     | <i>677,103</i>       |
| <b>Southern California Area</b>              |                                                |                            |                       |                               |                                           |                      |
| Antelope Valley—East Kern Water Agency       | 1,482,392                                      | 141,400                    | 352,527,421           | 1,525,547                     | 18,000,000,000                            | 365,000              |
| Castaic Lake Water Agency <sup>e</sup>       | 600,560                                        | 82,500                     | 199,994,142           | 133,500                       | 26,243,095,000                            | 249,000              |
| Coachella Valley WD                          | 726,423                                        | 121,100                    | 177,217,908           | 639,857                       | 40,703,747,303                            | 264,869              |
| Crestline—Lake Arrowhead Water Agency        | 44,789                                         | 5,800                      | 20,380,365            | 55,100                        | 1,500,527,807                             | 25,000               |
| Desert Water Agency                          | 1,009,525                                      | 50,000                     | 193,019,545           | 209,760                       | 7,520,537,310                             | 66,310               |
| Littlerock Creek Irrigation District         | 18,995                                         | 2,300                      | 5,213,975             | 10,000                        | 375,160,450                               | 2,900                |
| Metropolitan WD of Southern California       | 25,975,429                                     | 1,911,500                  | 7,309,242,182         | 3,328,000 <sup>f</sup>        | 1,563,002,519,611                         | 18,300,000           |
| Mojave Water Agency                          | 213,318                                        | 75,800                     | 176,117,355           | 3,136,000                     | 18,666,247,597                            | 358,800              |
| Palmdale WD                                  | 179,238                                        | 21,300                     | 51,917,434            | 119,680                       | 1,470,701,596                             | 109,845              |
| San Bernardino Valley Municipal WD           | 508,680                                        | 102,600                    | 386,485,871           | 210,000                       | 20,296,330,129                            | 600,000              |
| San Gabriel Valley Municipal WD              | 321,620                                        | 28,800                     | 112,118,625           | 18,297                        | 11,720,110,333                            | 210,145              |
| San Geronio Pass Water Agency                | 1,649                                          | 6,500                      | 65,774,794            | 140,800                       | 3,664,061,473                             | 65,000               |
| Ventura County Flood Control District        | 40,955                                         | 20,000                     | 44,247,916            | 308,252                       | 21,957,265,429                            | 457,000              |
| <i>Subtotal</i>                              | <i>31,123,573</i>                              | <i>2,569,600</i>           | <i>9,094,257,534</i>  | <i>9,834,793</i>              | <i>1,735,120,304,038</i>                  | <i>21,073,869</i>    |
| <b>Total</b>                                 | <b>75,092,486</b>                              | <b>4,125,686</b>           | <b>11,792,320,354</b> | <b>25,024,842<sup>g</sup></b> | <b>2,169,363,669,204</b>                  | <b>25,723,800</b>    |

<sup>a</sup>All water delivered to long-term SWP contractors, including carryover, Article 21, surplus, unscheduled, exchange, permit, purchased, local, and non-SWP water.

<sup>b</sup>Statutes of 1978, Chapter 1207, added Section 135 to the Revenue and Taxation Code, requiring assessment at 100% of full value for the 1981–82 fiscal year and fiscal years thereafter.

<sup>c</sup>Total of all Plumas County Flood Control and Water Conservation District, including Last Chance Creek Water District.

<sup>d</sup>Assessed valuation not available on an agency area breakdown.

<sup>e</sup>District includes land in the San Joaquin Valley Area formerly known as Devil's Den Water District.

<sup>f</sup>Total for Metropolitan, including Calleguas Municipal Water District, which is common to Metropolitan and Ventura County Flood Control District.

<sup>g</sup>Includes duplicate values. Some areas that are within two or more agencies are included in each agency's total.

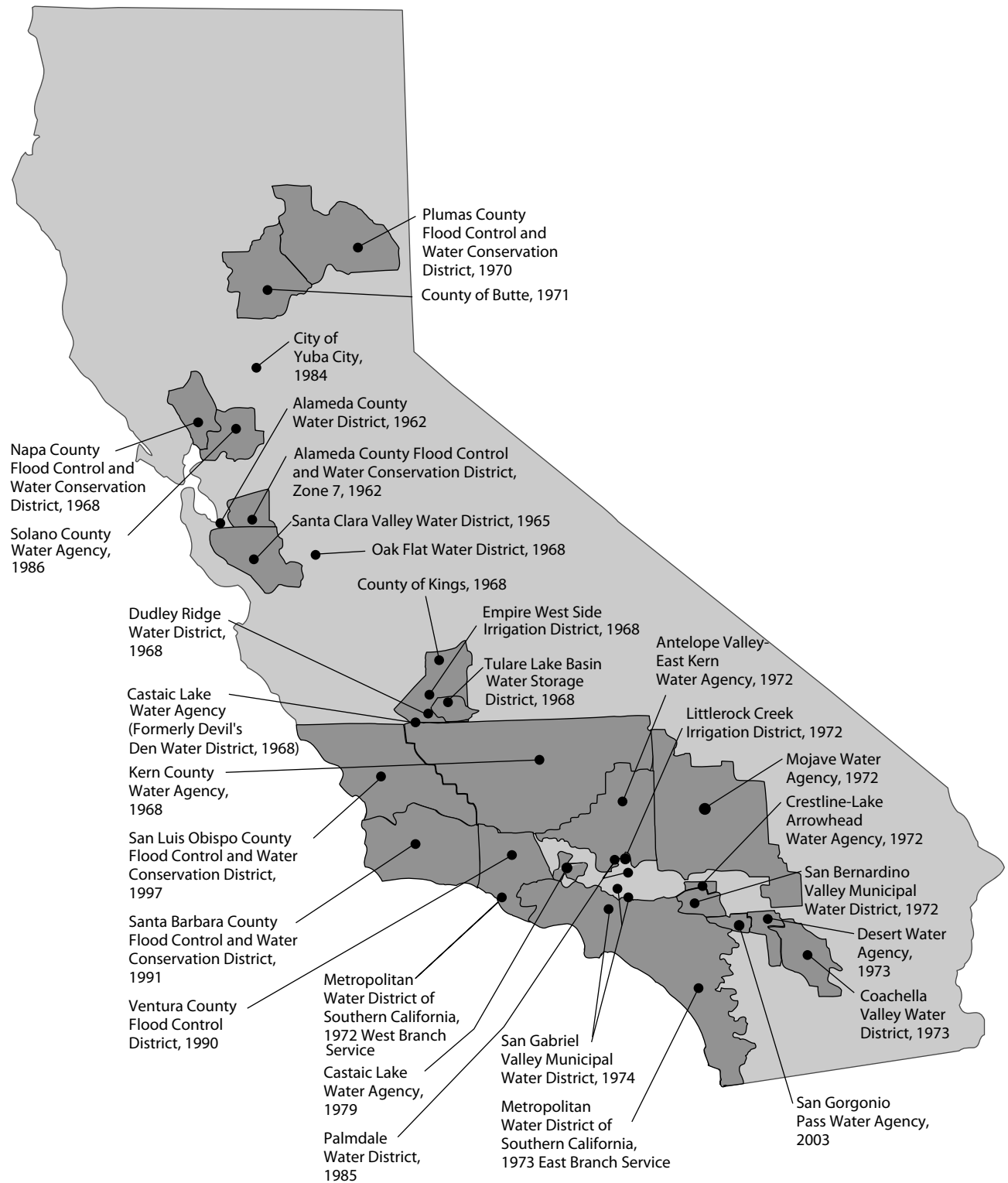


**Figure 1-2. Names, Locations, and First Year of Service of Long-Term Contracting Agencies, December 31, 2005**





## Chapter 2

# Delta Resources

*A*n aerial view of the Sacramento River and oxbow formations.

## Significant Events in 2005

**I**n November 2005, a draft environmental impact statement/ environmental impact report (EIS/EIR) was released for the South Delta Improvements Program (SDIP). The decision to proceed with the proposed project addresses a precipitous decline in the populations of pelagic (open water) fish in the Bay-Delta environment. One of the fish species is the delta smelt, which is an endangered fish.

The CALFED Record of Decision (ROD) calls for various modifications. These modifications include changes in the North Delta's conveyance facilities to improve Delta water quality, fisheries, and water supply reliability, as well as other modifications to improve flood protection and ecosystem health.

The Franks Tract 2005 modifications study showed significant Delta water quality improvements—at a relatively modest cost. This study recommends that operations of the proposed gates are refined for these alternatives to optimize water quality benefits. The report also recommends conducting a pilot project to evaluate, implement, and demonstrate the effectiveness and impacts of the facility before considering a full-scale project.

**I**nformation for this chapter was contributed by the Division of Planning and Local Assistance, the Central District, and the Bay-Delta Office.

The Sacramento-San Joaquin Delta is a unique environmental resource and a major source of water for millions of Californians. Over the past 40 years, the Department of Water Resources (DWR), and other State and federal agencies, have developed and implemented numerous programs to manage the Delta.

DWR's water management programs focus on solving problems in three distinct areas of the Sacramento-San Joaquin Delta: the North Delta, West Delta, and South Delta (see Figure 2-1).

These programs share the following common goals:

- to improve water supply reliability to the State Water Project (SWP), Central Valley Project (CVP), and Delta water users;
- to determine levels of flow and salinity necessary to protect fish and wildlife habitat;
- to devise methods to control flooding;
- protect fish and wildlife; and
- to provide recreational activities.

## Delta Water Management Programs

During the last decade, water management issues in the Delta have been complicated by the listing of native species under the federal Endangered Species Act (ESA); the creation of new Delta standards by the U.S. Environmental Protection Agency (EPA); the issuance of biological opinions under the ESA; and the implementation of 800,000 af of CVP yield for fish and wildlife protection (1992 Central Valley Improvement Act). Some of DWR's programs were deferred while solutions were sought.

In June 1994, a Framework Agreement between federal and State governments was established which defined a joint federal-State cooperative process for developing a long-term solution to water supply, water quality, and ecosystem problems of the Delta. Hence, the CALFED Bay-Delta Program was created with the goal of developing a long-term Delta solution. It put into place an extensive public outreach and input program as an important element of its planning methods.

In June 2000, the CALFED Bay-Delta Program issued a final programmatic Environmental Impact Report (EIR)/Environmental Impact Statement (EIS). The associated decision documents, primarily a Record of Decision (ROD), were published in August 2000. The ROD defined the approach and projects to be undertaken by the CALFED Program over a 30-year period.

The first stage of the CALFED Program (2000–2007) focuses on conveying water supply through the Delta. Specific projects and studies will be undertaken during Stage 1 to determine the feasibility of a through-Delta approach. DWR is the lead State agency for the projects and studies contained in the CALFED Conveyance Program and the Levee System Integrity Program. Actions contained in the CALFED Conveyance and Levee programs affect the North, West, and South Delta regions.

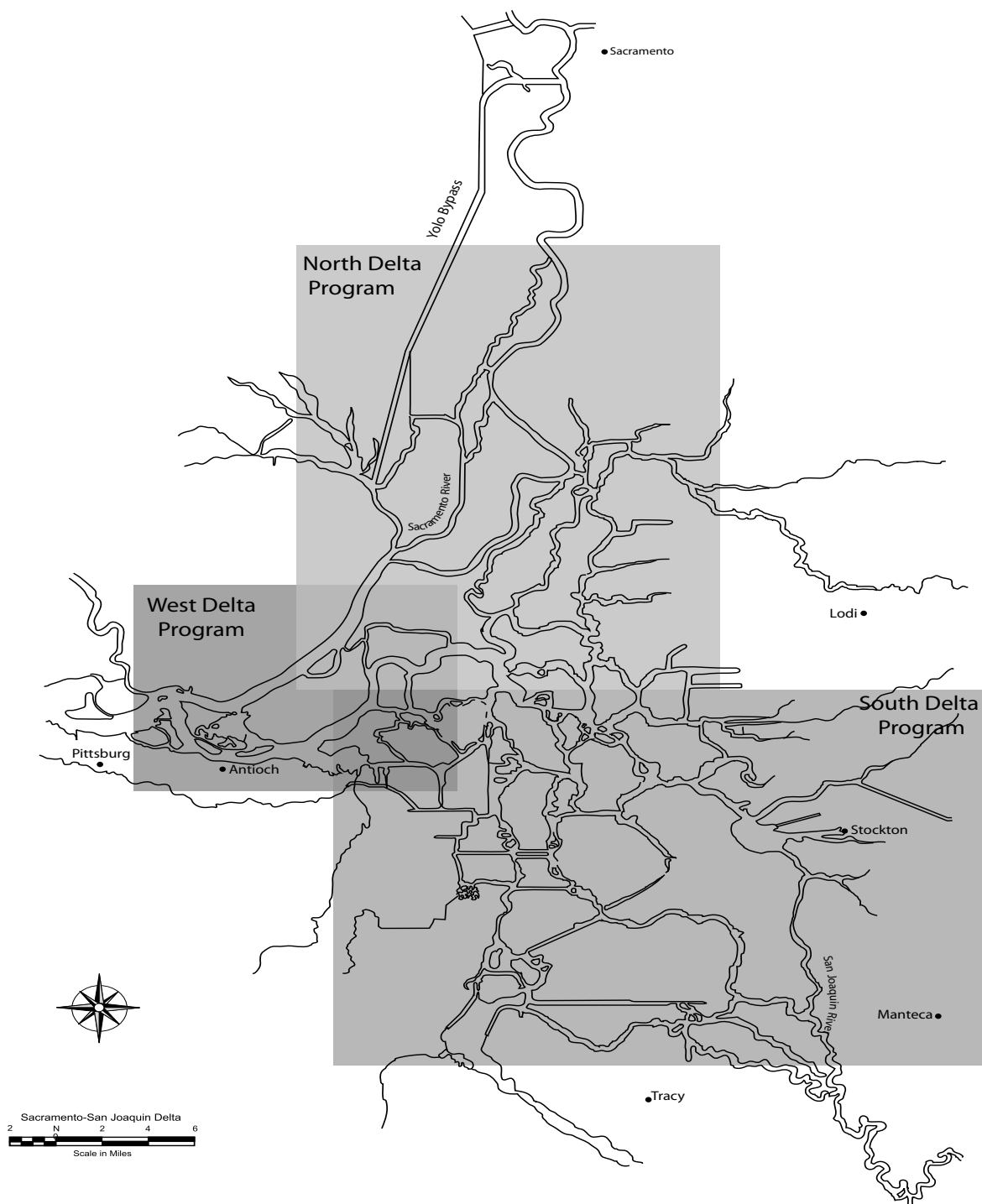


**Figure 2-1. The North, West, and South Delta Water Management Programs**

## **South Delta Improvements Program**

During the late 1990s, DWR pursued the Interim South Delta Program (ISDP), which accelerated construction of South Delta facilities to improve Delta water conditions. During the same period, the CALFED Bay-Delta Program worked on an independent long-term solution. DWR released a draft EIS/EIR for the ISDP in July 1996; however, a final EIS/EIR was never produced. In 1999, the South Delta facilities became a key component of the CALFED Bay-Delta Program. Subsequently, the program was renamed the South Delta Improvements Program (SDIP). The purpose of SDIP is slightly different than that of the ISDP.

In October 2005, a draft EIS/EIR was released for the SDIP. The decision to proceed with the proposed project addresses a precipitous decline in the populations of pelagic (open water) fish in the Bay-Delta environment. One of the fish species is the delta smelt, an endangered species. Stage 1 addresses the physical and structural component of the program, which is not expected to affect fish populations. Stage 2 is the operational component of the program. This stage will increase water deliveries and delivery reliability by increasing the Clifton Court Forebay diversion limit to 8,500 cfs. Only Stage 1 is being sought at this time, while Stage 2 is being deferred. Stage 1 of the SDIP includes the construction and operation of the following projects:

- three permanent operable gates to improve local water levels and circulation in South Delta channels;
- one permanent operable gate to prevent straying of salmon migrating to the San Joaquin River;

- extensive dredging in the South Delta to improve channel capacity for local agricultural users; and
- modifications to existing agricultural diversion intakes.

Several ways of operating the Clifton Court Forebay diversion at 8,500 cfs are available, but a preferred operation is not identified in the draft EIR/EIS. DWR is committed to issuing a supplemental environmental document on Stage 2, and circulating this document for a minimum of 45 days, prior to making any decisions.

SDIP elements originally placed in the ROD included increasing diversions through Clifton Court Forebay (first to 8,500 cfs and then to 10,300 cfs), dredging and installing operable tidal barriers in the South Delta, installing a fish barrier at Head of Old River, and constructing the first phase of a new intake and fish screen into Clifton Court Forebay. DWR deferred the increase in diversions of up to 10,300 cfs and the associated new fish screens as components of the SDIP due to major funding issues, as well as significant technical uncertainties associated with the design and construction of the new fish screens.

The SDIP continues to implement its original purposes:

- to reduce the movement of Central Valley fall and late fall juvenile Chinook salmon runs into the South Delta via Old River;
- to maintain adequate water levels and water quality, through improved circulation, to provide water for agricultural diversions in the South Delta downstream of the Head of Old River;

- to increase water deliveries and delivery reliability to SWP and CVP water contractors south of the Delta; and
- to provide opportunities to convey water for fish and wildlife by increasing the maximum permitted level of daily diversion through the existing intake gates at Clifton Court Forebay to 8,500 cfs.

### ***Preferred Plan***

The preferred plan for SDIP is to construct the physical/structural component as soon as permitting is complete and defer the operational component until more is known about the project's potential effects on the delta smelt.

### ***Temporary Barrier Facilities***

Temporary rock barriers are being installed annually, during low flow conditions, until the four permanent gates are operational. These barriers are being installed at four sites, as follows:

- 1) Head of Old River, in Old River where it splits from the San Joaquin River;
- 2) Old River near Tracy, one-half mile east of the Tracy Pumping Plant intake, and about eight miles northwest of Tracy;
- 3) Middle River, just south of the confluence of Middle River, Trapper Slough, and North Canal; and
- 4) Grant Line Canal, 420 feet east of the Tracy Boulevard Bridge.

The Head of Old River barrier prevents the San Joaquin River flow from entering Old River and flowing toward export facilities. This additional flow in the San Joaquin River helps guide San Joaquin salmon to the ocean in the spring and improves

dissolved oxygen levels for upstream salmon migration in the fall. The other barriers have culverts with flap gates that improve water levels and circulation in South Delta channels during the irrigation season.

Since 1963, the Head of Old River barrier has been installed in the fall. Since 1992, this barrier has also been installed intermittently in the spring, although high San Joaquin River flows sometimes prevent installation. The Old River barrier near Tracy has been seasonally installed since 1991; the Middle River barrier has been seasonally installed since 1987; and the Grant Line Canal barrier has been seasonally installed since 1996.

## **West Delta Program**

The objectives of the West Delta Program include the following goals:

- to effectively manage SWP-owned lands on Sherman and Twitchell islands (approximately 12,000 acres total);
- to improve the integrity of local levees;
- to implement land-use management techniques to control subsidence and soil erosion on Sherman and Twitchell islands;
- to implement mitigation requirements associated with the Temporary Barriers Program and proposed SDIP; and
- to provide diverse habitat for wildlife and waterfowl.

DWR contracted with a consultant to develop preliminary wildlife management plans for Sherman and Twitchell islands. These plans are designed to benefit wildlife species that occupy wetland, upland, and riparian habitats; as well as provide

recreational opportunities for hunting and viewing wildlife. Property acquired and habitat developed by DWR could mitigate impacts associated with current and future Delta water management programs, including programs proposed by DWR and the CALFED Bay-Delta Program. (See Chapter 7 for more information.)

DWR is a major landowner on Twitchell and Sherman islands and holds two of the three trustees' positions for Reclamation Districts 1601 (Twitchell Island) and 341 (Sherman Island). Consequently, DWR participates in the management and operation of each district, with the goal of improving conditions and accountability. The reclamation districts provide levee maintenance, island drainage, and some internal water supply. These districts assess the landowners for the operational needs of the public districts.

## North Delta Program

The CALFED ROD calls for various modifications. These modifications include changes in the North Delta's conveyance facilities to improve Delta water quality, fisheries, and water supply reliability, as well as other modifications to improve flood protection and ecosystem health.

Mitigations include the following:

- 1) evaluation and implementation of improved operational procedures for the Delta Cross Channel (DCC) to address fishery and water quality concerns;
- 2) evaluation of a screened Through-Delta Facility on the Sacramento River of up to 4,000 cfs; and
- 3) design and construction of floodway

improvements to provide conveyance, flood control, and ecosystem health.

The DCC Reoperation Project involves an evaluation of improved operational procedures for the DCC, which maintains high-quality water in the Central Delta, while reducing juvenile fish entrainment. The Through-Delta Facility is a diversion facility with a capacity of up to 4,000 cfs on the Sacramento River. Operation of the Through-Delta Facility is considered only after three separate assessments are satisfactorily completed: first, a thorough assessment of DCC operation strategies and the confirmation of continued concern over water quality impacts from its operations; second, a thorough evaluation of the technical viability of a diversion facility; and third, satisfactory resolution of the fisheries' concerns about a diversion facility.

The Franks Tract Project evaluates the restoration of remnant levees and the construction of tidal gates to inhibit salt trapping and mixing in Franks Tract. This process improves water quality in the Delta. Other benefits of restoring Franks Tract include the restoration of tidal marsh habitat and increased recreational opportunities.

In 2003, DWR became actively involved in the DCC Reoperation Project and Through-Delta Facilities (DCC/TDF) projects. DWR took the lead in managing the on-going DCC/TDF projects, as well as administering and funding all DCC/TDF contracts. DWR also initiated the Franks Tract Project in 2003 as part of the North Delta Convergence improvement project.

The purpose of the Franks Tract Project is to evaluate the feasibility of rehabilitating

Franks Tract's remnant levees for water quality, ecosystem, and recreation improvements. DWR is the implementing agency for the Franks Tract Project, Through-Delta Facility evaluation, and the design and construction of floodway improvements. DWR is a participating agency on the DCC Reoperation Project.

In 2005, projects relating to the DCC Reoperation Project and Through-Delta Facility were limited to completing analyses and writing reports on field work. These activities included reevaluating project funding and schedules. For example, the Flooded Islands Pre-Feasibility Study, initiated in April 2004, to develop and evaluate conceptual alternatives for modifying Franks Tract, Lower Sherman Lake, and Big Break, was completed in June 2005. It provides conceptual modification alternatives on the three flooded islands, with their respective benefits and costs.

The Franks Tract 2005 modifications study showed significant Delta water quality improvements—at a relatively modest cost. This study recommends that operations of the proposed gates are refined for these alternatives to optimize water quality benefits. The report also recommends conducting a pilot project to evaluate, implement, and demonstrate the effectiveness and impacts of the facility before considering a full-scale project. Subsequently, in 2006 and 2007, DWR will continue to refine and evaluate the operation and design of several pilot project alternatives in the Franks Tract area. The scope of the proposed pilot project is currently under development. In mid-2007, an EIR/EIS will be initiated for the pilot project.

North Delta Flood Control and Ecosystem Restoration Improvements, a Stage 1 action under the CALFED Bay-Delta Program, provides flood control and ecosystem restoration in the North Delta area. These improvements support other CALFED goals, which include water supply reliability, recreation, and agricultural land preservation. DWR is the State implementing agency, and many of the proposed CALFED elements for the project are similar to elements of earlier North Delta planning efforts. These earlier projects were suspended in deference to the CALFED program.

DWR is overseeing the preparation of an EIR and has engaged stakeholders and interested agencies in the North Delta planning process, through the North Delta Improvements Group and the Mokelumne-Cosumnes Watershed Alliance. DWR has worked cooperatively with stakeholders to develop and incorporate phases in project alternatives. These plans include implementation flexibility, complete hydraulic modeling analysis of phased alternatives, and significant progress on project impact analysis and cost estimates. DWR staff has also worked with federal regulatory agency scientists and academic experts. They are continuing the academic science panel project review and the provision of science advisement through alternatives refinement and project planning. Project environmental documentation is scheduled for completion in 2006.

## Delta Flood Control

Many of the important assets in the Sacramento-San Joaquin Delta are protected from flooding by levees. Without the levees, the Delta as we know



it today would be an inland sea. The levees serve many needs: they protect valuable wildlife habitat, farms, homes, urban areas, recreational developments, highways, railroads, natural gas fields, utility lines, major aqueducts, and other public developments. They are critical to the protection of in-Delta water quality and water quality for approximately 24 million Californians who receive their water from the State's export system. The State Legislature recognized the importance of the Delta and enacted the Delta Flood Protection Act of 1988 (Senate Bill (SB) 34 [Water Code Sections 12310 et seq., and 12980 et seq.]). With SB 34, the Legislature declared that "...the Delta is endowed with many invaluable and unique resources and that these resources are of major statewide significance."

In SB 34, the Legislature declared its intent to appropriate \$12 million annually for the Delta Flood Protection Fund. Six million dollars of the appropriation are for local assistance under the Delta Levee Maintenance Subventions Program. The remaining \$6 million are for Delta Special Flood Control Projects, including subsidence studies and monitoring on Bethel, Bradford, Jersey, Sherman, and Twitchell islands; Holland, Hotchkiss, and Webb tracts; and the towns of Thornton and Walnut Grove.

Since 1988, the program has managed \$202 million in appropriated funds and, combined with local funds, has realized \$275 million in levee improvements. In 1996, Assembly Bill (AB) 360 was signed into law and expanded the area covered by the Delta Special Flood Control Projects Program to include the remainder of the legal Delta and the northern Suisun Bay from Van Sickle Island to Montezuma

Slough. Bond appropriations of \$25 million from Proposition 204 (enacted in 1996) and \$30 million from Proposition 13 (enacted in 2000) provide supplemental funding. In November 2002, Proposition 50 was approved. It provides \$70 million in additional funding to implement the Delta Flood Protection Program as adopted in CALFED, where the program is known as the Levee System Integrity Program.

### **CALFED Levee System Integrity Program**

The goals and objectives for the Levee System Integrity Program are listed as follows.

#### ***Base Level Protection***

This program provides funding to help local reclamation districts reconstruct all Delta levees to a base level of protection (Public Law 84-99 standard). About 520 out of 1,100 miles of Delta levees initially do not meet this standard. During Stage 1, about 200 additional miles of levees are planned to be brought up to a base level of protection, provided there is sufficient funding.

#### ***Special Improvement Projects***

This program will enhance levee stability on levees that have particular importance in the State. Priorities include protecting life and personal property (more than 400,000 people live in Delta towns and cities), water quality (preventing salinity intrusion), the Delta ecosystem, and agricultural production.

#### ***Suisun Marsh Flood Protection and Ecosystem Enhancement***

This program provides levee integrity, ecosystem restoration, and water quality benefits by supporting maintenance

and improvement of the levee system in the Suisun Marsh. The Suisun Marsh Levee Investigation was undertaken in January 1999, at the request of the CALFED Policy Group, to determine if adding Suisun Marsh levees into the Levee System Integrity Program would contribute to CALFED program goals. The team has identified significant links between Suisun Marsh levee maintenance and achievement of CALFED drinking water quality and ecosystem restoration goals. Furthermore, modeling research indicates a significant risk of negative water quality impacts in the Delta if Suisun Marsh levees are inadequately maintained and allowed to fail. When adopted, the CALFED Suisun Marsh Charter will help guide future actions.

### ***Levee Emergency Response Plan***

The emergency response plan for the Delta has been improved recently to better coordinate response agency activities, and the distribution of materials, when combined with local agency efforts. This will enhance the combined ability to respond to levee emergencies.

### **Delta Levee Maintenance Subventions Program**

The Delta Levee Maintenance Subventions Program provides matching funds for levee work critical to the long-term survival of Delta islands and the State water supply. This program assures the continuance of the Delta's ability to provide its many statewide and local benefits. Within CALFED's Levee System Integrity Program, the Delta Levee Maintenance Subventions Program provides funding, as a reimbursement, to local Delta reclamation districts for levee maintenance and improvement. Each year up to 65 participating districts prepare

work plans and file applications with the State Reclamation Board (SRB) for funding.

The applications and work plans are reviewed by DWR, which then makes a recommendation and requests the approval of SRB for the program funding level. SRB approves each district's maximum possible reimbursement—up to 75 percent for levee work and habitat mitigation—and maximum advanced reimbursement amount. The reimbursement amount may be up to 75 percent of eligible costs. After SRB approval, agreements are executed between SRB and each participating district. These agreements state that eligible work will be completed during the current fiscal year. All work must be in compliance with appropriate State and federal laws, including the California Environmental Quality Act, the State and federal ESA, Section 1600 of the Fish and Game Code, and Section 404 of the Clean Water Act, and must have confirmation from the Department of Fish and Game (DFG) that a net long-term habitat improvement of riparian, fisheries, and wildlife habitat will result.

### **Delta Special Flood Control Projects**

The Special Flood Control Projects Program under CALFED assists the eight western islands, portions of the Suisun Marsh, the towns of Thornton and Walnut Grove, and other locations in the Delta with flood protection and levee stability repairs. The California Water Commission approved a report of initial actions in September 1989, and it approved the long-term actions and priorities in May 1990. The long-term actions and priorities serve as a guide for DWR to determine how best to use appropriations to protect these

islands. Long-term actions and priorities include the following:

- rehabilitation of threatened levees through the use of imported dredged material;
- verification of elevations in the Delta through the use of Global Positioning System equipment;
- upgrading levees to the standards included in Bulletin 192-82, Delta Levees Investigation; and
- projects to achieve net long-term habitat improvement for fish and wildlife.

While DWR always seeks cost sharing for all projects, the actual reimbursement depends on each reclamation district's ability to pay. DWR provides up to 100 percent of the cost of these activities. Districts receiving these funds are required to participate in a habitat improvement program to ensure net long-term habitat enhancement.

Levee restoration projects in 2005 include the following:

- initiation of two large-scale levee rehabilitation projects on Sherman Island;
- initiation of the phase III levee rehabilitation project on Bethel Island;
- development of a 50-acre mitigation project on Bradford Island;
- completion of large scale rehabilitation projects on Jersey Island;
- continuation of a large scale rehabilitation project on New Hope Tract; and
- initiation of a Delta-wide program to conduct magnetic anomaly surveys of district levees.

### **Delta Levees Habitat Improvement**

The Delta Suisun Marsh Office, as part of the CALFED Levee System Integrity Program, continues to make significant strides in its efforts to create valuable habitat in the Delta. By the end of 2005, the program had developed 247.4 acres of various types of habitat, 9,410 linear feet of shaded riverine aquatic habitat for mitigation, and 14.4 acres and 14,328 linear feet for enhancement. During 2005, the program continued to develop almost 36 acres of habitat for levee project mitigation and 10 acres for enhancement.

Completed mitigation and enhancement projects include the following:

- Medford, Bethel, and Kimball islands;
- Terminous, Wright Elmwood, Palm, and Thornton-New Hope (Grizzly Slough) tracts;
- Twitchell Island setback levee;
- Twitchell Island mitigation areas;
- Staten Island berm and channel islands;
- Canal Ranch attached berm;
- Lower Sacramento River revegetation, Grand Island, in participation with the U.S. Army Corps of Engineers (Corps);
- Webb Tract Sites 3 and 1, and Little Tinsley Island in-channel island protection and restoration;
- Decker Island Phase I and Phase II construction, and tidal wetlands restoration at Horseshoe Bend along the lower Sacramento River;
- Tyler Island bank stabilization demonstration; and

- purchase of 666 acres at Meins Landing in the Suisun Marsh for tidal wetland restoration.

Projects underway include the following:

- fish monitoring of Decker Island restoration site;
- construction of a setback levee on Sherman Island;
- Sherman Island Parcel 11 Revegetation Project;
- Dutch Slough feasibility study concepts; and
- Bradford Island Tract 19 mitigation area development.

Projects proposed include the following:

- Delta levees habitat mitigation; and
- Tidal restoration of Dutch Slough.

DWR, DFG, and reclamation districts are successfully providing avoidance or mitigation of habitat losses and net long-term habitat improvement in the Delta. Reclamation districts have been very cooperative in helping DWR meet its mitigation and enhancement needs. Decker Island Habitat Restoration Area, completed in 2004, is targeted specifically for the needs of endangered Sacramento splittail and delta smelt, providing 26 acres of tidal aquatic area. Continued monitoring is determining the amount of fishery use of the restoration site, evaluating the hydrogeomorphic performance of the site, and providing valuable data for future restoration work.

DWR and DFG will continue to work with the reclamation districts to preserve existing habitat and to improve the

quantity and quality of newly developed habitat in the Delta.

### **Reuse of Dredged Material for Delta Levees**

As local sources of fill material for levee repair are depleted, new economical sources must be located. During the last 15 years, DWR, in coordination with the Corps, local reclamation districts, and the Central Valley Regional Water Quality Control Board (CVRWQCB) implemented three pilot projects at Sherman, Twitchell, and Jersey islands to demonstrate the viability of relocating material from the San Francisco Bay Area to the Delta. Extensive monitoring and testing programs for salinity impact were required; no salinity impact was demonstrated. More recently, CVRWQCB has started looking at other constituents of dredged material and is becoming more stringent in its requirements. The addition of new monitoring and preparation requirements has raised the cost of reuse. If these costs continue to rise, DWR will reevaluate the practicality of participating in this portion of the program. Based on the assumption that reuse will remain economically beneficial, DWR has worked to find more opportunities to reuse clean, bay-dredged materials in the Sacramento-San Joaquin Delta. Current efforts for beneficial reuse of dredged material from the Bay area principally consist of the following:

- participation in the multiagency Delta Long Term Management Strategy (LTMS) for the beneficial reuse of dredged material;
- coordination with CVRWQCB to address water quality concerns;
- discussions with the Corps to promote identification and acquisition of federal funds to support beneficial reuse

projects;

- participation in a large regional meeting with various stakeholders in the Delta to address dredging and dredged material reuse issues;
- coordination with the Corps, CVRWQCB, CALFED, and Reclamation District 341 to stockpile dredged material from Suisun Bay and New York Slough on Sherman Island; this long-term project could consist of 200,000 cubic yards of material dredged annually for five years. This project will be initiated by a demonstration project with 150,000 cubic yards coupled with an intense monitoring program;
- levee restoration and habitat projects proposed or under construction;
- obtaining waste discharge requirements for the demonstration project on Sherman Island;
- obtaining 54,000 cubic yards of dredged material on Sherman Island; and
- reusing dredged material on Sherman Island to construct the set-back levee.

## Levee Upgrades

Upgrading the Delta levees is an integral part of the CALFED Levee System Integrity Program plan being implemented through the DWR Delta Flood Control Program. According to the CALFED ROD, all Delta levees should be built to the Corps' Delta-specific Public Law 84-99 levee standard. This standard is comparable to DWR's Bulletin 192-82 standard and provides protection against flooding in a 100-year flood event. The minimum freeboard is 1.5 feet for levees protecting agricultural land, and 3 feet for levees protecting urban areas. A typical improved levee section would have a 16-foot crown width, a waterside slope of 2 horizontal to 1 vertical, and a landside slope designed for the depth of peat soils

under the levee. Generally, the landside slope would be between 2:1 and 5:1.

DWR and the Corps signed an agreement in 2001 to co-manage the CALFED Levee System Integrity Program, including the Delta Flood Protection Program. This agreement allows close coordination of efforts and assures compatibility with CALFED goals and objectives.

## Subsidence Investigations

Historically, draining and cultivating Sacramento-San Joaquin Delta marshlands caused the peat soil to break down and compact. The peat has oxidized and subsided since the mid-1800s, when the land was first drained and levees constructed. The surface of organic soils in the Delta is now between 10 and 29 feet below sea level. The Legislature recognized the problem and, with the initiation of the Delta Flood Protection Act of 1988, DWR began monitoring subsidence and studying its causes and the means for reversing its effects.

DWR and the U.S. Geological Survey conduct an ongoing subsidence investigation in the Delta. Preliminary data indicate the following:

- land management practices substantially influence subsidence rates;
- cultivation practices that raise soil temperature and lower the water table dramatically increase oxidation of the peat soils;
- conversion of highly organic peat soils to carbon dioxide gas (oxidation) appears to be the recent primary cause

of subsidence;

- permanently flooded shallow wetlands decrease release of gaseous carbon by as much as 80 percent, thereby mitigating subsidence; and
- permanently flooded shallow wetlands also promote the growth of wetland vegetation that adds biomass back into the system.

Current studies of subsidence mitigation and growth of wetland vegetation suggest that shallow permanent flooding will be part of the process to reverse subsidence through biomass accretion.

In 1999, CALFED granted Category III funds to DWR to construct a Subsidence Reversal Demonstration Project on Twitchell Island. To date, field monitoring, determination of hydrologic and tidal boundary conditions, and sediment modeling have been completed; construction, monitoring, and instrumentation installation continues at the field test sites. Water quality, soils, and hydraulic and carbon release data were collected from the test sites, and the preliminary model for groundwater has been completed. The contract amendments were completed in 2005, and work on the study was resumed. The study is to be completed by the end of 2006.

DWR will also work with the CALFED Science Program to develop best management practices to control and reverse subsidence and will work with local districts and landowners to implement cost-effective measures.

The U.S. Geological Survey and area consultants have set up a learning laboratory to study ways to reverse subsidence at Oulton Point on Twitchell Island.

This project will combine the cultivation of tules and other aquatic vegetation in shallow ponds with application of thin layers of sediment. Land surface accretion and organic soil oxidation rates will be measured.

## Delta Agricultural Water Users

In 1974, the Delta Water Agency was replaced by six Delta agricultural water agencies: North Delta, South Delta, and Central Delta water agencies; Contra Costa County Water Agency, East Contra Costa Irrigation District, and Byron-Bethany Irrigation District. In 1981, North Delta Water Agency and East Contra Costa Irrigation District signed water rights management contracts with DWR. The department negotiated contracts and requested negotiations with other agencies to provide water level, circulation, and quality needs in certain areas.

## South Delta Water Agency Contract

In September 1990, DWR completed negotiations for a long-term agreement with the South Delta Water Agency and Reclamation. Under this proposal, the South Delta contract, the parties agreed to proceed with the design, construction, and operation of certain barrier facilities in the South Delta channels. These facilities resolved those portions of the lawsuit that South Delta filed in 1982, regarding the alleged effects of export pumping by SWP and CVP on water levels, quality, and circulation in the South Delta.

DWR has installed and operated temporary barrier facilities in the South Delta to improve area conditions, as well as collect data needed to design and operate

permanent barrier facilities. Data collected in the Temporary Barriers Program was used to assess the barriers' ability to reduce or eliminate adverse water levels and improve local hydraulic circulation patterns.

## **Western Delta Municipal Water Users**

DWR signed contracts with Contra Costa Water District in 1967 and Antioch in 1968. These contracts compensated Contra Costa and Antioch for purchasing water of usable quality, when such water was not available from Mallard Slough and the San Joaquin River.

According to the terms of these contracts, DWR compensates each agency for the additional costs of purchasing a substitute water supply from the Contra Costa Canal. This water is purchased to replace water supplies of usable quality, which are lost due to SWP operations. Credits for the number of days of above-average water supplies of usable quality, from Mallard Slough and the San Joaquin River, accrue to offset the number of below-average days in future years.



## Chapter 3

# Environmental Programs

**P**elicans take flight over a waterway in the Sacramento-San Joaquin Estuary.



## Significant Events in 2005

In April 2005, the National Marine Fisheries Services (NOAA Fisheries) issued a proposed listing of the southern population of North American green sturgeon (*Acipenser medirostris*) as threatened under the Endangered Species Act (ESA). This listing was based on a March 2004 U.S. District Court decision. The court remanded a NOAA Fisheries finding that the North American green sturgeon does not warrant listing as a threatened or endangered species.

On September 2, 2005, NOAA Fisheries issued a final rule designating Critical Habitat for California salmonids. Approximately 8,935 miles of riverine habitat and 470 square miles of estuarine habitat were designated as Critical Habitat Area for seven Evolutionarily Significant Units (ESUs) of Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*O. mykiss*) in California. This rule will become effective on January 2, 2006.

On October 20, 2005, the Resources Agency released the Delta Smelt Action Plan, a researched-based, scientific approach to counteract the decline of pelagic fish in the Delta. During 2004, Interagency Ecological Program (IEP) scientists detected sharp population declines in pelagic fish species, including delta smelt, which are considered a key indicator of the health of the Delta ecosystem. The State will research potential causes of this decline, including pollutants, contaminants, invasive species, food chain disruptions, and water operations of State and federal projects. The Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR) increased the IEP 2005 budget by \$1.7 million to support research to identify causes for the decline of pelagic fish in the Delta.

In April 2005, the Lower Yuba River Accord was announced. This collaborative proposal settled long-standing litigation over instream flow requirements in the lower Yuba River. The accord is based on three proposed agreements: a water purchase agreement, including water for the Environmental Water Account (EWA); a conjunctive use agreement; and a fisheries agreement. The fisheries agreement is intended to benefit some of the last wild populations of salmon and steelhead in the Central Valley by establishing instream flow requirements. On November 29, 2005, DWR and the Department of Fish and Game (DFG) announced their support for the proposed Lower Yuba River Accord pilot program. The Lower Yuba River Accord will formally take effect in late 2006.

On December 23, 2005, NOAA Fisheries published a final listing that recognized 10 Distinct Population Segments (DPSs) of West Coast Steelhead as either threatened or endangered under ESA. This listing confirmed the threatened status of all California steelhead DPSs.

Information in this chapter was contributed by the State Water Project Analysis Office, the Division of Environmental Services, and the Division of Operations and Maintenance.

The Department of Water Resources (DWR) has developed and implemented several programs to avoid, minimize, or offset adverse environmental impacts, which may result from the operation of State Water Project (SWP) facilities.

## Operations for Species of Concern

A primary consideration in the operation of the SWP is avoiding, minimizing, and off-setting adverse environmental impacts to species of concern. A species of concern is listed (or proposed for listing) as threatened or endangered by a State or federal agency. The legal authority for listing is the federal Endangered Species Act (ESA) or the California ESA. A key to avoiding and minimizing adverse impacts to these species is maintaining flexibility in SWP operations, which is done mainly through the Environmental Water Account (EWA). EWA provides protection to Delta fisheries through changes in SWP and CVP operations, while maintaining water supply reliability to the projects' water users. Operational responses can include Delta Cross Channel gate closure, export curtailments, changes in delivery schedules, increased reservoir releases, preferential use of certain facilities, or a combination of these actions. (Additional information about EWA can be found in Chapters 7 and 9.)

## San Joaquin River Activities

DWR coordinated with the Bureau of Reclamation (Reclamation) to increase flows in the San Joaquin River, from mid-April through mid-May (pulse flow period), to benefit fall-run Chinook salmon emigrating from the San Joaquin River Basin. This plan, known as the Vernalis Adaptive Management Plan (VAMP), is a 12-year federal and State research

program, which is associated with the San Joaquin River Agreement. VAMP calls for intensive fisheries sampling in the lower San Joaquin River. Several studies were coordinated with the fisheries collection efforts to estimate the relative survival of marked salmon moving through the Delta under VAMP during the pulse flow period. The goal is to conduct operational changes and associated studies over a number of years (to determine if a relationship exists between river flow, Delta exports, and salmon survival) throughout the southern Delta. The resulting information will be used to determine if changing San Joaquin River flows and Delta exports in the spring can significantly benefit San Joaquin River fall-run Chinook salmon.

### *Temporary Barriers*

VAMP-participating agencies use temporary barriers as a tool to facilitate the following goals:

- provide an adequate water supply for South Delta water diverters;
- improve water quality conditions in the Stockton Deep Water Channel; and
- prevent young Chinook salmon from entering Old River, thereby reducing the likelihood of entrainment at the South Delta facilities.

In 2005, the Spring Head of Old River barrier was not installed, due to high flows on the San Joaquin River. This spring season barrier will help improve conditions for juvenile Chinook salmon,

which migrate out of the San Joaquin River Basin. The barrier was installed in the fall, between September 30 and November 15. The purpose of this barrier is to help with low dissolved oxygen levels in the lower San Joaquin River and prevent migrating adult Chinook salmon from entering the area.

Temporary barriers were installed on Middle River and Old River near Tracy, on May 17 and June 6, respectively, and the Grant Line Canal barrier was completed on June 18. The primary purpose of these barriers is to increase water levels in the South Delta for local water users. The barriers were removed in mid- to late-November, due to the lack of need for irrigation water and possible conflicts with winter-run salmon.

## Piru Creek/Pyramid Dam Operations

The original Federal Energy Regulatory Commission (FERC) License for the Castaic Power plant project, FERC Project No. 2426, contained a provision that specified continuous minimum releases from Pyramid Lake to Piru Creek (5 cfs from November 1 thorough March 31 and 10 cfs for the remainder of the year) for the maintenance of a trout fishery, located in middle Piru Creek. This requirement was amended in 1982 to require a continuous minimum flow (5 cfs from November 16 through April 30 and 10 cfs for the remainder of the year). Additional releases were stipulated, based on the daily ambient air temperature, to maintain water temperatures suitable for the trout fishery.

The daily flow fluctuations were found to be detrimental to the Arroyo toad,

which is known to breed along middle Piru Creek. In 1994, the Arroyo toad was listed as a federally endangered species. Since 1995, at the request of the California Department of Fish and Game (DFG), the summer releases to Piru Creek were maintained at 25 cfs (April 1 through August 31). This release schedule provided water temperatures protective of the trout fishery and eliminated the flow fluctuations thought to be detrimental to the Arroyo toad.

Concerns were raised regarding the impact of the flow release schedule on the Arroyo toad population at a series of interagency meetings held in 2003 with representative from the U.S. Fish and Wildlife Service (USFWS), DWR, DFG, and other organizations. It was concluded that the higher summer maintenance flows were contributing to conditions in middle Piru Creek that were detrimental to the Arroyo toad and had resulted in incidental take. New operational criteria were developed to simulate the natural hydrology of middle Piru Creek, to the extent operationally feasible, to provide the greatest benefit to the Arroyo toad. DWR agreed to alter Pyramid operations to avoid further incidental take.

New operational guidelines for Pyramid Dam releases to Piru Creek were adopted in 2005. These guidelines were released after the certification of the Final EIR in February 2005 and FERC approval of a temporary waiver of the minimum flow requirements (Article 52 of the license for project 2426) in April 2005. Under the new criteria, releases to Piru Creek from Pyramid Dam will match natural surface inflow into Pyramid Lake to the extent operationally feasible.

DWR holds a water rights permit authorizing the appropriation of water from Piru Creek, at Pyramid Lake, when flows are greater than the demands of the downstream water users. DWR has appropriated water from Piru Creek in only seven years since 1978.

The operational revisions will limit future SWP appropriations from Piru Creek to those flows in excess of the safe release from Pyramid Dam. The new guidelines, consistent with the Final EIR, also allow for the delivery of up to 3,150 af of SWP water, via Piru Creek, to Ventura County Watershed Protection District, under the provisions of the long-term water supply contract for United Water Conservation District. The SWP water deliveries will occur only between November 1 and the end of February each year.

## **Biological Opinions Issued on the Revised CVP/SWP Operating Plan**

### **USFWS Biological Opinion**

On August 6, 2004, USFWS issued a non-jeopardy biological opinion on impacts to threatened delta smelt by proposed revised operations of CVP and SWP. The USFWS concluded that any adverse effects from the Operating Criteria and Plan (OCAP) for the two jointly operated projects will be avoided or minimized by conservation measures and the adaptive management measures which were newly incorporated into the project plan. This Biological Opinion was renewed in 2005.

OCAP addressed the operational impacts on delta smelt by committing the two projects to take early protective actions

for the species. These actions will occur before high numbers of the fish reach the major export pumps, where losses often occur. OCAP incorporated the EWA into the delta smelt protective actions.

The biological opinion also set new incidental take limits for delta smelt. The new USFWS take limits are based on the most recent 11 years of data (1993–2003), using more recent information. The new take limits are based on two categories of water year type: (1) wet or above normal, and (2) below normal, dry, or critical. The Delta Smelt Risk Assessment Matrix (DSRAM) adult concern level is set at 892, and the reconsultation level varies by month, ranging from 100 to 44,800. When the incidental take is exceeded, a team of interagency scientists, called the Delta Smelt Working Group, will convene a meeting to review smelt distribution, abundance, projected project operations, and other information. This work group will recommend any actions that should be taken to reduce salvage. The adaptive management measures in OCAP are intended to provide better protection for the species.

### **NOAA Fisheries Biological Opinion**

In its supplemental biological opinion, issued February 27, 2004, NOAA Fisheries concluded that the continuation of OCAP, through March 2006, is not likely to jeopardize the continued existence of spring-run Chinook salmon or steelhead in the Central Valley. This opinion was issued to provide an ESA take exemption for project operations, while work continued on the long-term consultation project. Notwithstanding this conclusion,

an incidental take statement and several reasonable and prudent measures were issued to minimize take.

Reasonable and prudent measures to protect spring-run Chinook salmon and steelhead in the Central Valley include the following:

- continuing research on the effects of flow and water temperature;
- operating to meet temperature objectives;
- minimizing adverse effects of Delta Cross Channel operations;
- minimizing Delta exports during fisheries' sensitive times;
- conducting research to improve facility operations at fish salvage collection facilities;
- conducting weekly scientific reviews of current data; and
- minimizing take from unscreened diversions that are part of interim water contract renewals.

### **Delta Export Curtailment**

SWP and CVP operated under a new Delta Smelt Biological Opinion in 2005, which was signed in August 2004.

On January 24, 2005, the incidental take of pre-spawning adult delta smelt at SWP and CVP exceeded the concern level of 892. The Delta Smelt Working Group met to discuss possible actions. As a result, combined exports were reduced to 3,000 cfs for seven days.

In 2005, 2,922 delta smelt were salvaged by SWP and 818 were salvaged by CVP. This compares to 20,470 delta smelt salvaged at both facilities in 2004.

## **Decisions on Endangered Species**

### **North American Green Sturgeon**

In 2001, NOAA Fisheries received a petition from the Environmental Protection Information Center, the Center for Biological Diversity, and Waterkeepers Northern California that requested a listing of the North American green sturgeon (*Acipenser medirostris*) as either a threatened or an endangered species under ESA. The petition also noted a request for the designation of critical habitat for the species, concurrently with any listing determination.

In January 2003, NOAA Fisheries issued a 12-month determination that listing of the species was not warranted. However, on April 7, 2003, the plaintiffs challenged the NOAA Fisheries determination. The initial finding was set aside by the U.S. District Court, and the matter was remanded to NOAA Fisheries in March 2004. The court was not satisfied with the NOAA Fisheries examination of whether purported lost spawning habitat constituted a significant portion of either Distinct Population Segment's (DPS's) range.

On April 5, 2005, NOAA Fisheries filed a proposed rule with the Federal Register to list the southern DPS of North American green sturgeon, the population occurring south of the Eel River, as threatened under the ESA. The biological review team used previous studies of salmon in the Central Valley to examine the likelihood that spawning habitat has been lost within the range of the southern green sturgeon DPS. It was determined that dams built on the upper Sacramento and Feather rivers likely block migration of green sturgeon,

## Endangered Species Acts

In planning, constructing, and operating the SWP, DWR must consider the effects its actions will have on organisms, including plants, birds, reptiles, fish, and mammals, listed as threatened or endangered according to the Federal Endangered Species Act (Title 16, United States Code sections 1531–1544 [1973]) and the California Endangered Species Act (California Fish and Game Code sections 2050–2098 [1984]).

An endangered species is one in danger of extinction in all or a significant portion of its range; a threatened species is one likely to become endangered. These acts are designed to protect threatened and endangered species by

- ensuring federal and State agencies adopt measures to protect the species during the design, construction, and operation of projects and in taking other forms of agency action; and
- prohibiting the unauthorized take of endangered species.

One important aspect of the acts is preserving habitat critical to the survival of the species.

significantly reducing the historical habitat of the southern DPS.

2005 to help understand and counteract the causes of the decline of delta smelt.

## Trends in Fish Abundance

Figure 3-1 shows the abundance index for delta smelt, from 1967 through 2005, based on fall midwater trawl sampling. Using the first two tow net surveys only, delta smelt abundance indices are calculated as the product of the total catch at each site and a weighting factor that represents the estimated water volume for the site, divided by 1,000. The fall abundance index provides one of the best indicators of the status of the adult delta smelt population. The 2005 index was the lowest index on record. Since 2002, abundance indices for this species have been lower than expected, given moderate flow conditions of the past several years. The Delta Smelt Action Plan was implemented in October

Figure 3-2 shows estimates of returning adult winter-run Chinook salmon, from 1967–2005. These estimates are referred to as escapement estimates—the number of adults that escape mortality and return to spawn. The Sacramento River winter-run Chinook salmon escapement estimates are generated using data from the DFG carcass survey. DFG has been using the carcass survey data to generate escapement estimates since 2002. Prior to 2002, Red Bluff Diversion Dam counts were used to generate the escapement estimate. Winter-run escapement has continued to increase since 2002. The estimated winter-run Chinook escapement for 2005 was 15,839, which was substantially more than the estimated 7,464 adults in the parent stock of 2002, and the highest escapement since 1981. Factors such as improved spawning

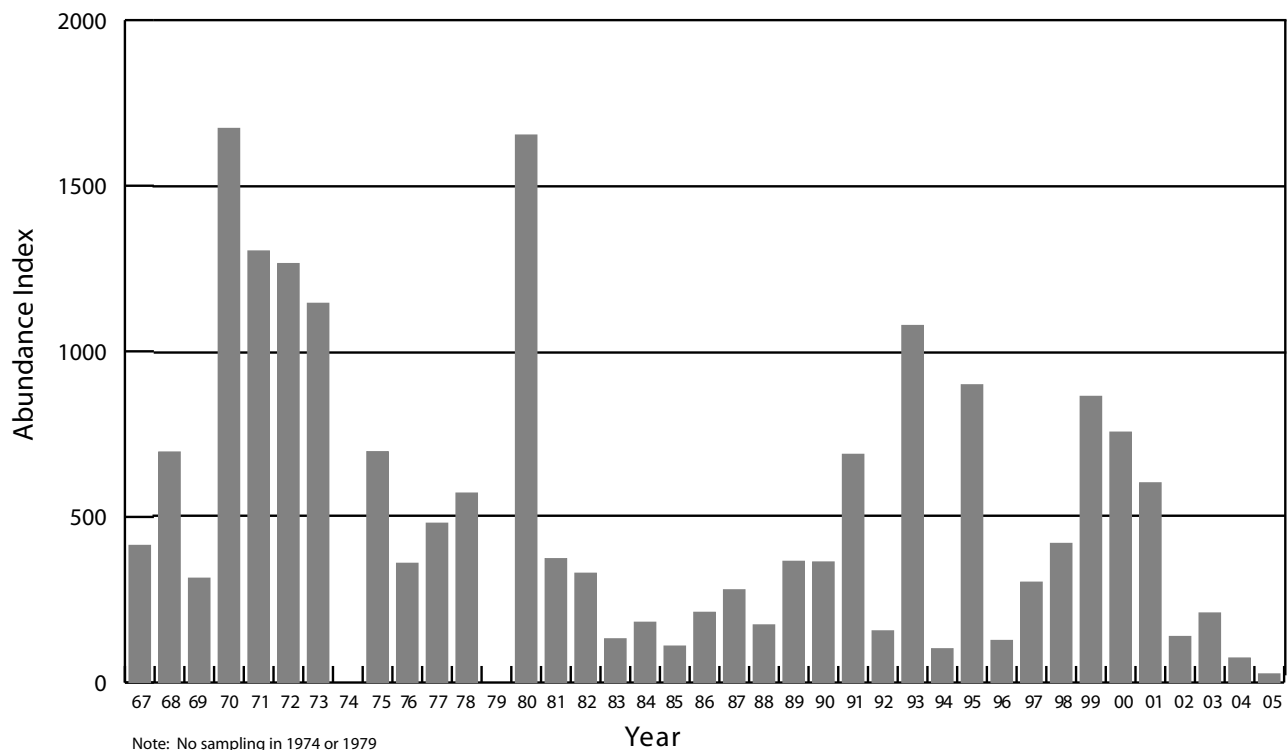


**Figure 3-1. Delta Smelt Fall Midwater Trawl Abundance Index, 1967-2005**

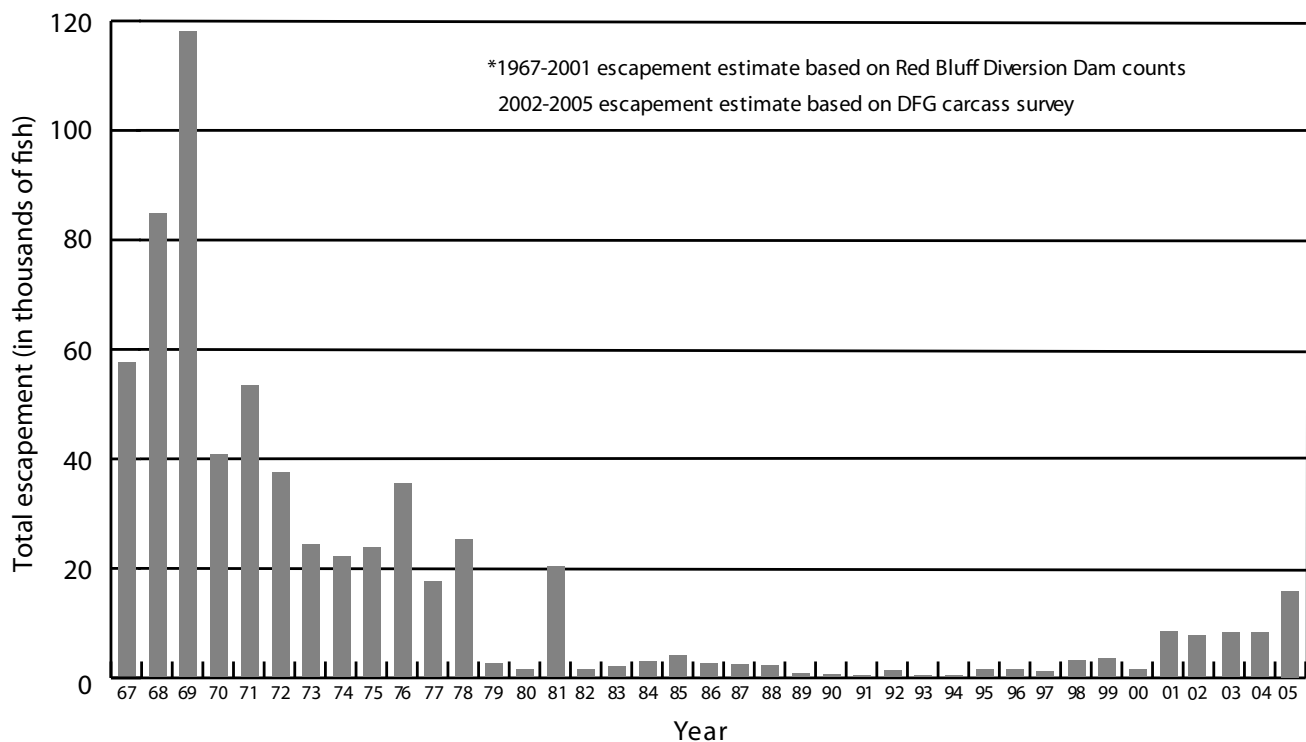


**Figure 3-2. Estimated Total Adult Winter-Run Chinook Salmon Escapement, 1967-2005**

and rearing habitat, reduced losses in the Delta, reduced commercial fishing losses, and changing ocean conditions are likely to benefit winter-run Chinook salmon.

Figure 3-3 shows estimates of returning adult spring-run Chinook salmon, from 1990–2005. Individual estimates are shown for Mill Creek, Deer Creek, Butte Creek, and the Feather River—the principal spawning streams for this race of salmon. The escapement estimates are shown separately for each stream, because the Feather River estimate is based on returns to the Feather River Hatchery, where the genetic integrity of spring-run Chinook salmon is uncertain. The estimated escapement for 2005 was 1,820 for the Feather River Hatchery and about 14,000 for the other streams combined.

Spring-run escapement in 2005 increased about 24 percent, as compared to 2004 statistics.

Counting methods for returning adult spring-run Chinook salmon from the Feather River Hatchery changed in 2004. From May 17 through June 30, 2005, the fish ladder was opened, allowing adult spring-run Chinook salmon to enter the Feather River Fish Hatchery. During this time period, 5,950 fish entered the hatchery. In an effort to better estimate spring-run Chinook salmon abundance, and to distinguish fall- from spring-run, the fish were tagged with an external “floy” tag and released back into the Feather River. When spawning commenced in the fall, a total of 2,991 spring-run fish were recaptured: 1,835 at the hatchery, 1,049 in

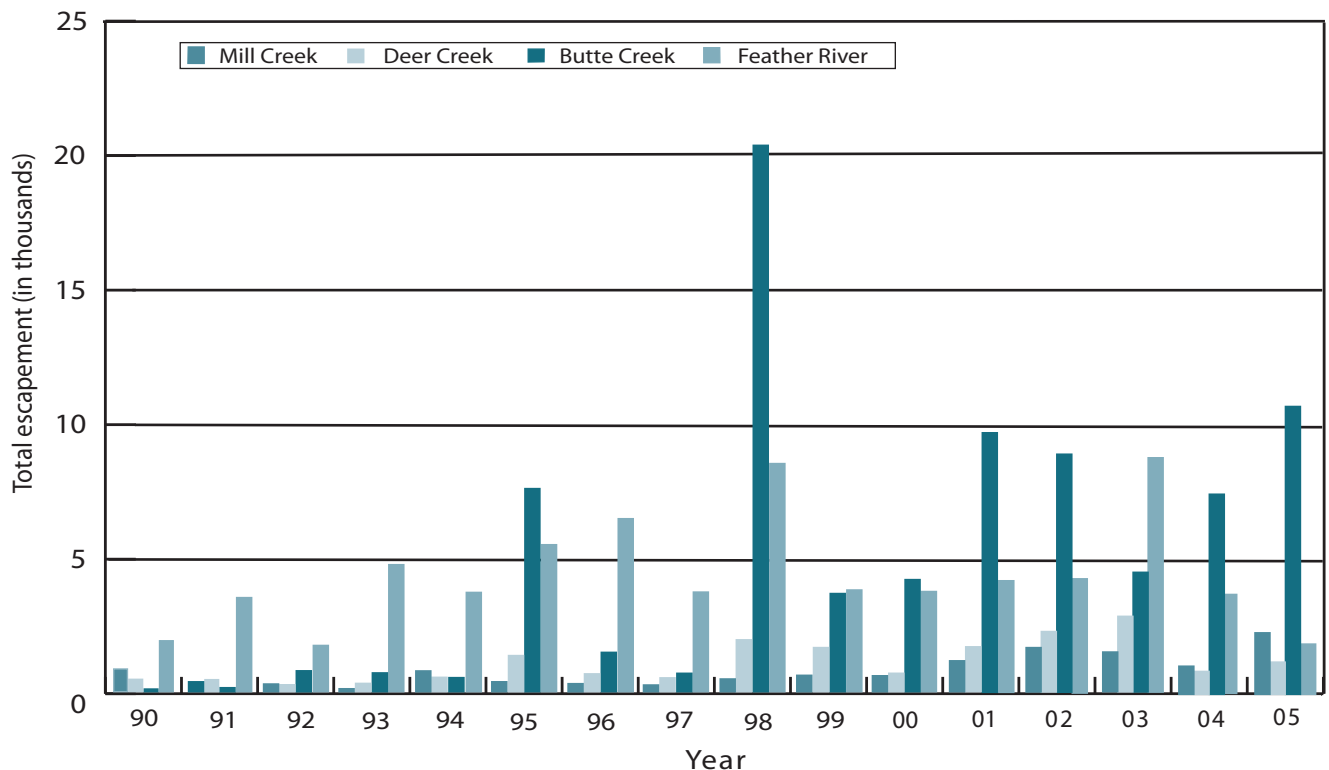


**Figure 3-3. Estimated Spring-Run Chinook Salmon Escapement, 1990-2005**



the river escapement survey, and 107 by anglers.

The Feather River Hatchery successfully spawned 1,830 (99.7 percent) of the fish returning to the hatchery. Four hundred twenty-three (89 percent) of the 474 female salmon recovered in the river escapement survey were classified as spent (and are thus assumed to have spawned successfully). Based on the escapement survey recapture data, the sex ratio of the marked spring-run was 2.24:1—females to males. While these methods do not yet provide a complete population estimate for Feather River spring-run Chinook salmon, future refinements may make such an estimate possible.

The return numbers for spring-run Chinook salmon remain consistently higher than the early 1990s statistics. Like winter-run Chinook salmon, factors such as improved spawning and rearing habitat, reduced losses in the Delta, and reduced commercial fishing losses likely benefited spring-run Chinook salmon.

Due to lack of comprehensive monitoring programs and the difficulty in conducting that monitoring, there are no reliable escapement estimates for wild Central Valley steelhead.

## Feather River Fish Studies

In the early 1990s, the Feather River fish studies were initiated to document and monitor fish populations in the lower Feather River. Early efforts focused on studies to identify flow requirements for Chinook salmon and steelhead. This program has progressively expanded since the mid-1990s in preparation for the FERC relicensing of the SWP Oroville-Thermalito

Complex. Field program elements include the operation of rotary screw traps, snorkeling, salmon spawning surveys, radiotelemetry, and spring-run Chinook tagging.

Rotary screw traps capture juvenile salmon and steelhead as they emigrate from the Feather River. Data collected from the traps are used to monitor the timing and abundance of salmonid emigrants. This long-term monitoring effort yields valuable baseline information about juvenile salmon production in the Feather River and the effects of project operations on abundance and migration timing. Snorkel surveys monitor juvenile and adult steelhead abundance, distribution, and habitat use in the Feather River. This information is used to identify major habitats used by steelhead and evaluate the impacts of project operations on the natural production of steelhead. Steelhead redd surveys are conducted to determine the distribution and physical characteristics of natural steelhead spawning sites in the Feather River. Salmon spawning surveys estimate the number and distribution of adult Chinook salmon that returned to spawn in the river. Radiotelemetry gathers baseline information on the migration and holding patterns of adult Chinook salmon in river.

Data from the Feather River sampling programs revealed several significant trends. For example, steelhead redd surveys show that in-river spawning continues at low levels. Juvenile steelhead first appear in March and are most abundant in well-vegetated side channels of the low-flow channel. Water temperatures do not appear to limit the abundance of juvenile steelhead within the low-flow channel. Rotary screw traps

show that the peak of salmon emigration occurs in February or March, indicating that flows do not cue or influence the timing of salmon emigration. Salmon spawning surveys demonstrated that two-thirds of all spawning occurs within the low-flow channel. In fall 2005, more than 43,738 adults and 4,838 grilse spawned in the Feather River, from the Fish Barrier Dam downstream to Gridley. These estimates include both fall- and spring-run Chinook salmon, since their spawning is currently not fully segregated on the Feather River.

Twenty-six adult salmon were captured and radio tagged in 2005 to assess patterns of holding habitat use for adult Chinook salmon which up-migrate in the spring. A combination of manual tracking and fixed station data logging was used to assess the location of adult Chinook salmon. The Chinook salmon were detected anywhere from 81 to 153 days after being tagged. The total observed distance traveled by tagged Chinook salmon ranged from 0.3 to 25.1 river miles. The largest surveyed net movement was 11.2 river miles, which was navigated downstream. Of the 25 fish successfully tracked, only three fish were detected at the Thermalito Outlet. These fish spent a total of one to six days at the outlet throughout the entire survey season. Twenty-three of the 25 fish were last detected or recovered in the low-flow channel above the Thermalito Outlet, while the remaining two fish were detected downstream of the outlet.

## Pelagic Organism Decline in the Upper San Francisco Estuary

Abundance indices calculated by the Interagency Ecological Program (IEP)

suggest recent marked declines in numerous pelagic fishes in the upper San Francisco Estuary. The major resident pelagic fishes sampled in the upper estuary include delta smelt, longfin smelt, striped bass, and threadfin shad. Historically, low populations of these fishes have been the result of dry years, such as the drought in 1987–1992. Abundance indices for 2002–2005 indicate record and near-record lows for these populations, which are unexpected given the moderate winter-spring flows of the past several years. In response to the Pelagic Organism Decline (POD), the IEP formed a work team to evaluate the potential causes. An interdisciplinary, multiagency research effort was undertaken in 2005 to identify the most likely causes of the POD. The overall approach was based on a “triage” model to identify the most likely causes and assign priorities to projects on the basis of where funds and resources can best be used. The 2005 work fell into four general types: an expansion of existing monitoring; analysis of existing data; new studies; and ongoing studies. A conceptual model was developed to describe possible mechanisms by which a combination of long-term and recent changes in the ecosystem could produce the observed declines in the abundance indices.

Possible stressors influencing the POD studied in this initial effort were: entrainment, toxic effects on fish, toxic effects on fish food, harmful algal blooms, clam *Corbula* effects on food availability, disease, and parasites. Narrative explanations in the context of long-term trends have been developed for four major components: (1) prior fish abundance—which describes how the continued low abundance of adults leads to reduced juvenile production; (2) habitat—which describes how water quality variables,

including contaminants and toxic algal blooms, affect estuarine species; (3) top-down effects—which posit that predation and water project entrainment affect mortality rates; and (4) bottom-up effects—which focus on how food web interactions in Suisun Bay and the West Delta have affected fish abundance. Based on the product of the 2005 effort, a suite of 47 proposals were developed, and several studies begun, for 2006–2007 to cover each component of the conceptual model.

## Fish-Related Mitigation Projects

In 1986, DWR and DFG signed the Four Pumps Agreement to annually provide funds to replace fish lost at Banks Pumping Plant. This agreement provided a \$15 million lump sum for additional projects to compensate for losses prior to 1986. The agreement focuses on Chinook salmon, striped bass, and steelhead, and considers other fish.

Since 1986, DWR has spent \$42 million on mitigation projects, which were developed under the Four Pumps Agreement. These projects include the following:

- improving salmon spawning and rearing habitat and migration pathways in the San Joaquin Basin;
- planting hatchery-reared and net-pen-reared striped bass;
- expanding the Merced River Fish Facility to increase salmon production and cost-sharing in annual operating costs;
- implementing a conjunctive-use project to improve salmon migration flows in Mill and Deer creeks in Tehama County;

- constructing fish ladders and screens on Butte Creek;
- constructing fish screens in Suisun Marsh and in the San Joaquin Basin;
- operating an acclimation pen to improve the survival of hatchery-reared salmon during their release into San Pablo Bay; and
- enhancing the enforcement of fish and game laws in the Delta and upstream to benefit salmon, steelhead, and striped bass, as well as increasing protection for spring-run Chinook salmon.

In 1996, DWR and DFG amended the agreement to include the following:

- allow another five years to spend the remaining \$9 million of the \$15 million lump sum provided in the agreement, because of difficulties in developing mitigation projects; and
- specify the likely allocation of the remaining funds.

DWR could not spend the full \$15 million lump sum in the 10 years required by the original agreement. The remaining funds were tentatively allocated to provide the following:

- \$2 million for screening diversions in Suisun Marsh;
- \$1 million for predator-isolation projects on San Joaquin River tributaries;
- \$2 million for a conjunctive-use project to improve spring-run salmon migration in Deer Creek in Tehama County; and
- \$4 million for a salmon conservation hatchery on the Tuolumne River.

In December 2001, the five-year extension expired with only \$4 million of the remaining \$9 million spent, due to difficulties in implementing several of the mitigation projects. Approximately \$1.4 million remained of the allocations under Amendment 1, and \$3.6 million became available for other projects when DFG halted planning for a conservation salmon hatchery in the San Joaquin Basin. DWR and DFG amended the agreement again, to provide three more years to spend the remaining \$5 million of the \$15 million lump sum, and to specify the likely allocation of the remaining unallocated funds.

The \$3.6 million in available remaining funds were tentatively allocated to provide the following:

- \$950,000 for a revised conjunctive-use project to improve spring-run salmon migration in Deer Creek in Tehama County;
- \$300,000 for screening diversions on the San Joaquin River tributaries;
- \$500,000 for salmon spawning habitat and floodplain restoration on the Stanislaus River;
- \$700,000 for two salmon spawning habitat and channel restoration projects on the Tuolumne River;
- \$1.1 million for salmon habitat and river restoration on the Merced River; and
- \$68,000 for salmon spawning gravel replenishment at wing deflector sites on the Merced River.

In December 2004, about \$3.6 million of the funds allocated in the previous two extensions were still unexpended, and the agreement was amended with a three-year

extension, through December 2007. Much of this funding is currently encumbered in contracts.

Other mitigation projects approved in 2005, for implementation from the agreement's annual mitigation funds and the \$15 million lump sum, included the following:

- \$228,000 for the operations and maintenance of 14 fish screens in Suisun Marsh, to be completed by the Suisun Resource Conservation District (SRCD) over the next 12 years;
- \$313,000 for the Expansion of the Robinson Reach Conservation Easement, Merced River Salmon Habitat Enhancement Project, to cost share with the Wildlife Conservation Board to complete funding for the \$1.3 million estimated total easement cost; and
- \$160,480 to complete design scenarios for the Upper Western Stones Reach, Merced River Salmon Habitat Enhancement Project.



## Chapter 4

# Water Quality Programs

*S*uisun Marsh salinity control gates help control the water quality of the marsh.

## Significant Events in 2005

On March 23, 2005, a landslide occurred in Posey Canyon near Pyramid Lake that broke a 14-inch crude oil pipeline spilling about 120,000 gallons of oil. Within hours, crews from the Department of Water Resources (DWR) and Los Angeles County's Fire and Sheriff's departments built earthen dikes in the canyon to contain the oil. DWR staff deployed oil booms to contain the oil which had entered the small cove that receives runoff from Posey Canyon.

The bulk of the oil was contained within the canyon, and a light wind helped ensure that the oil that did make it into the lake remained isolated in the narrow cove. Water deliveries from Pyramid Lake were cancelled immediately after the spill and during the cleanup. Water quality monitoring began the morning after the spill and continued until it was determined that the water was safe to move.

On May 5, 2005, the State Water Resources Control Board (SWRCB) issued a draft cease and desist order to DWR and the Bureau of Reclamation (Reclamation) regarding alleged threatened noncompliance of their licenses and permits that pertain to the operation of the State Water Project (SWP) and the Central Valley Project (CVP). If the SWRCB adopts the draft order, it will find that DWR and Reclamation are threatening to violate the conditions of their licenses and permits, which require that they meet the 0.7 millimhos per centimeter electrical conductivity (EC) objective at three of the southern Delta compliance locations between April 1 and August 31. The SWRCB conducted a public hearing on October 24, 2005, to receive evidence relevant to determining whether to adopt the draft cease and desist order, but SWRCB did not adopt the draft order in 2005. The 0.7 millimhos objective was not exceeded in 2005.

*Information in this chapter was contributed by the Division of Environmental Services and the Division of Operations and Maintenance.*

The State Water Project (SWP) provides many Californians with part or all of their daily residential water needs. This includes water for agriculture, industry, power generation, recreation, and fish and wildlife. The water provided by the SWP is monitored by the Department of Water Resources (DWR) for quality throughout the system. This assurance of quality is made possible by the use of an automated network of continually operating recorders and laboratory analyses of field samples collected weekly, monthly, quarterly, and annually.

## Delta Activities

The State Water Resources Control Board (SWRCB) sets water quality objectives for beneficial water uses in California, and the Department of Health Services (DHS) establishes maximum contaminant levels for treated drinking water. Additional water quality objectives are set at points of delivery by Article 19 of the long-term SWP water supply contracts. Water quality in the Delta and Suisun Marsh is protected under SWRCB's Decision 1641 (D-1641), adopted in December 1999 (see sidebar). SWRCB's issuance of D-1641 is part of its implementation of the 1995 Bay-Delta Water Quality Control Plan and, accordingly, this decision amends certain water rights of the water rights holders to help achieve the plan's objectives.

## Water Supply Conditions

### Water Year Classifications and Water Supply Indexes

DWR conducts extensive monitoring to protect beneficial uses of water in the Delta and Suisun Marsh, as required by D-1641. Figure 4-1 shows water quality compliance stations throughout the Sacramento-San Joaquin Delta required by D-1641.

SWRCB's D-1641 contains water quality and flow standards that are conditioned by water year type, which generally become less stringent in years with less precipitation. The water year classification system provides relative estimates of a basin's available water supply based on the amounts of rainfall, snowmelt runoff, and groundwater accretion rates. Water year types are classified as "wet," "above normal," "below normal," "dry," or "critical."

Water year 2005 was classified as above normal for California under criteria set forth by SWRCB in D-1641. (For a detailed discussion of water year 2005, see Chapter 8.)

D-1641 applies the Sacramento Valley 40-30-30 Index, a water supply forecasting tool which largely replaced the Sacramento River Index. SWRCB first introduced the Sacramento Valley 40-30-30 Index in its 1991 *Bay-Delta Water Quality Control Plan for Salinity*.

The Sacramento Valley unimpaired runoff is a sum of the major flows into the Sacramento Basin. The factors used in the Sacramento Valley 40-30-30 Index are: (1) the current year's April-through-July Sacramento Valley unimpaired runoff

## State Water Resources Control Board

The State Water Resources Control Board (SWRCB), established by the California Legislature in 1967, oversees water rights and water quality for California. Among its many responsibilities, SWRCB issues permits for the use of all water except groundwater and riparian water; distributes State and federal loans and grants for constructing sewage facilities; adopts water quality control plans, regulations, and policies; and sets water quality standards for the Delta.

In 1978, to implement its mandate to set Delta water quality standards, SWRCB issued Water Right Decision 1485 (D-1485): Sacramento-San Joaquin Delta and Suisun Marsh. That decision focused on SWP and CVP water right permits and operations, requiring SWP and CVP to maintain Delta water quality as it would have existed without the projects. However, after D-1485 was adopted, various water users and the federal government challenged it in court. Since then, SWRCB updated its Water Quality Control Plan (WQCP), adopted on May 22, 1995. Water Right Order 95-06 amended D-1485 to be consistent with the plan on June 8, 1995. WR 95-06 modified the standards for Suisun Marsh and allowed the SWP and CVP to use either project's Delta pumping plant to pump project water to increase fish protection and maintain project delivery capability. Water Right Order 98-09, adopted by SWRCB on December 3, 1998, extended the terms and conditions of WR 95-06 to allow time for the issuance of a comprehensive Water Right Decision.

On December 29, 1999, SWRCB issued Decision 1641 (D-1641), replacing D-1485, and conditioning the water right permits of the SWP and CVP to implement the objectives of the Bay-Delta Water Quality Control Plan. D-1641 covers Phases 1-7 of the Bay-Delta Water Rights Hearings. On March 15, 2000, SWRCB adopted Water Right Order 2000-02, which denies the petitions for reconsideration of D-1641, clarifies findings, and amends several conditions of D-1641. On April 26, 2001, SWRCB adopted Water Right Order 2001-05, which facilitates negotiations to settle the potential responsibilities for implementing the WQCP. This order stayed Phase 8 for 18 months, and automatically dismisses it at the end of that period, unless SWRCB receives notice requesting its resumption. SWRCB dismissed Phase 8 on January 31, 2003.



(40 percent); (2) current October-through-March Sacramento Valley unimpaired runoff (30 percent); and (3) the previous year's 40-30-30 Index (30 percent, with a cap of 10 maf).

D-1641 also includes another water supply forecasting tool, the San Joaquin Valley 60-20-20 Index, which uses methods similar to the Sacramento Valley 40-30-30 Index.

The Eight River Index is a sum of the runoff from the eight major rivers of the Sacramento and San Joaquin valleys. This index determines the duration of the fish and wildlife salinity and flow standards at Chipps Island or Port Chicago from February through June.

The April-through-July Sacramento Valley unimpaired runoff forecast for May 1, 2005, was 6.63 maf (99 percent of average). The resulting Sacramento Valley 40-30-30 Index forecast was 7.4, resulting in the forecast classification of below normal for water year 2005. The forecast of the San Joaquin Valley 60-20-20 Index on May 1 was 4.3, resulting in the water year being classified as wet in the San Joaquin Basin. The Eight River Index forecast on May 1 was 12.1 maf for April through July.

## **Operations under the State Water Resources Control Board Water Right Decision 1641**

During 2005, DWR and the U.S. Bureau of Reclamation (Reclamation) operated joint projects in accordance with SWRCB's D-1641, which includes water quality, flow, and operational criteria for the Delta. Operations of the SWP and Central

Valley Project (CVP) were coordinated with various objectives of CALFED, the Bay-Delta Plan, Central Valley Project Improvement Act, and biological opinions for fish species listed under the federal and State Endangered Species Acts (ESA).

As mentioned above, the water quality and flow criteria contained within D-1641 are conditioned by water year type. Specifically, the 40-30-30 Index water year type forecast on May 1 of each year determines the water year type for the implementation of flow and water quality criteria contained within D-1641. During most years, the water year type forecast and the actual water year type (calculated at the end of the water year) are in agreement, but this was not the case in 2005. Due to late-season precipitation, the 2005 water year ended with an above normal classification; but on May 1, 2005, the forecast was for a below normal water year. It is important to mention that in 2005, the SWP and CVP were operated using water quality and flow criteria based on the May 1 forecast of below normal, as required by D-1641.

CALFED's Record of Decision mandates an Environmental Water Account (EWA) managed by DWR, Reclamation, the Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NOAA Fisheries) for the protection of listed fish species. Fish species currently listed under the federal and State ESA include the winter and spring runs of Chinook salmon, delta smelt, and steelhead.

Real-time monitoring of fish movement and conditions in the estuary aids daily water management and provides more



**Figure 4-1. Decision 1641 Water Quality Compliance and Monitoring Stations in the Sacramento-San Joaquin Delta**

timely protection of targeted fish species from entrainment at the Delta pumping facilities. (See Chapter 3 for a discussion of other environmental issues.)

## **Delta Cross Channel Gates**

The Delta Cross Channel gates allow fresher Sacramento River water to flow into interior Delta channels toward the export facilities of the SWP and CVP. During 2005, the gates were open for 157 days. Reclamation's standard operating procedures call for gate closure any time the Sacramento River flow at Freeport reaches between 20,000 cfs and 25,000 cfs to reduce flooding potential on the Mokelumne River and to prevent scouring on the downstream side of the gate structure. D-1641 contains measures that require closure of the gates from February 1 until May 20, during peak migration of winter-, spring-, and fall-run Chinook salmon smolts and steelhead, and the spawning season for delta smelt, longfin smelt, Sacramento splittail, and striped bass.

During 2005, the gates remained closed from January 1 through late June. On June 25, the gates were opened, and they remained open until November 16, when the gates were closed to protect out-migrating winter-run salmon. The gates were reopened on November 20 and then were closed again on December 3, 2005, for fishery protection. The gates remained closed through the end of December.

## **Water Quality Standards**

DWR attempts to meet D-1641 water quality and flow standards through releases from upstream reservoirs and Delta export operations, but D-1641 also contains a salinity standard for the

San Joaquin River at Vernalis. San Joaquin River flows are not influenced by SWP upstream reservoirs, but they may be influenced by SWP exports and placement of South Delta barriers.

High river outflows, export restrictions, and water releases to benefit migrating fish (both pulse and attraction flows) help maintain most electrical conductivity (EC) values below standards.

## **Municipal and Industrial Objectives**

D-1641 includes a year-round 250 mg/L chloride objective that is in effect at Delta export locations (Contra Costa Canal Pumping Plant No. 1, Clifton Court Forebay, Tracy Pumping Plant, Cache Slough at the City of Vallejo intake, and Barker Slough). Chloride levels remained below the objective throughout 2005.

An additional municipal and industrial water quality objective for chloride at the Contra Costa Canal Intake, near Rock Slough, specifies that the chloride level must be below 150 mg/L for a given number of days during the year, dependent upon the water year forecast. The below normal year requirement of 175 days was met on July 14, 2005.

## **Agricultural Objectives**

D-1641 contains an agricultural EC objective, which varies by location, based on both water year type and a 14-day running average during the irrigation season, from April to mid-August, set at Emmaton, Jersey Point, Terminous, and San Andreas in the western and central Delta. The agricultural salinity objective at these Delta locations is also based on

water year type, becoming less stringent under dryer conditions. The agricultural EC objective was met at all four stations during 2005. An additional salinity objective is applied year round in the southern Delta at two locations on the San Joaquin River (Brandt Bridge and Vernalis) and two locations on Old River (Tracy Road Bridge and the head of Middle River). The SWP and CVP are jointly required by D-1641 to meet agricultural EC objectives imposed at these South Delta compliance locations. Meeting these objectives has sometimes been problematic. The SWRCB recognized in the 1995 Bay-Delta Water Quality Control Plan that elevated salinity in the South Delta is caused by multiple factors, including locally derived salts. On February 18, 2005, DWR and Reclamation jointly filed a petition with the SWRCB to change the effective date of the southern Delta water quality objective of 0.7 EC from April 1, 2005, to December 31, 2008, and to require that DWR and Reclamation continue to meet the 1.0 EC objective during these months. The request was made because installation of permanent operable gates in the South Delta had been delayed, and the gates are necessary for DWR and Reclamation to effectively implement the objective. A draft initial study and proposed negative declaration was submitted to the Office of Planning and Research on November 1, 2005. The SWRCB did not take action on the change petition by the end of the year.

### **Estuarine Habitat Protection Standard**

The estuarine habitat protection standard incorporates modified X2 criteria (geographic isohaline) first established in the *1994 Delta Smelt Biological Opinion*. The upstream movement of 2 ppt isohaline (2 parts per thousand of salt in the water),

measured as 2.64 mS/cm at the surface, is maintained within a certain range of positions in the estuary by adequate Delta outflow. These positions at Chipps Island or Port Chicago, from February through June, are associated with an abundance of fish and biota.

The number of days per month when the daily averaged EC maximum (2.64 mS/cm) is in effect at Chipps Island or Port Chicago is conditioned by the previous month's Eight River Index. This may alternately be met with a maximum 14-day running average EC of 2.64 mS/cm or with specific Delta outflow, set as a 3-day average Net Delta Outflow Index of 11,400 cfs or 29,200 cfs, when the X2 position is at Chipps Island or Port Chicago, respectively. The Port Chicago standard becomes effective when the Port Chicago 14-day EC average, immediately prior to the first day of the month, is less than or equal to 2.64 mS/cm. The Eight River Index, from December 2004 through May 2005, in af, was 1.56 million, 2.49 million, 2.01 million, 3.75 million, 3.18 million, and 7.23 million, respectively. On the last day of January 2005, the 14-day EC average at Port Chicago exceeded 2.64 mS/cm, triggering compliance at Chipps Island for February. Twenty-eight days were required for X2 at Chipps Island during February; all three criteria were met for 28 days. During March, the required 31 days were also met at Chipps Island, with all three criteria in compliance. During April, X2 was met at Port Chicago, and all criteria surpassed the required 18 days. In May, X2 was met for the required 31 days at Chipps Island. On the last day of May, due to above average May precipitation, the 14-day EC average at Port Chicago was less than 2.64 mS/cm, triggering X2 compliance at Port Chicago for June. The X2 requirement of 28 days was met for the entire month of June.

## Net Delta Outflow Index Standard

Delta outflow cannot be measured directly due to the tidal influence in the Delta. Instead, an approximation of Delta outflow is calculated using measured inflows, exports, and estimated Delta water use. The Net Delta Outflow Index (NDOI), introduced in the 1995 Bay-Delta Plan, now part of D-1641, guided operations in 2005. NDOI calculates Delta outflow by including inflows of the Sacramento River, the Yolo Bypass system, the eastside stream system (consisting of the Mokelumne, Cosumnes, and Calaveras rivers), the Sacramento Regional Treatment Plant, and a measurement of San Joaquin River flow at Vernalis.

Excess outflow conditions, as defined by the Coordinated Operation Agreement, allow for greater flexibility in project operations. During 2005, Delta water conditions began and ended in excess, totaling an accumulated 306 days.

D-1641 sets specific minimum monthly NDOI standards, based upon water year type, between 3,000 and 8,000 cfs for the protection of fish and wildlife during January and from July to December. During below normal water years, July's NDOI objective of 6,500 cfs is the most stringent of all months. In 2005, the monthly mean NDOI was highest in May, averaging 59,442 cfs. This was unusual, because in most years, this occurs during the winter months. The monthly mean NDOI remained above 4,700 cfs during all months of the year, with the lowest monthly mean NDOI occurring in October with 4,749 cfs. All NDOI standards were met in 2005.

## Flow Standards

D-1641 includes minimum flow requirements measured in the Sacramento River at Rio Vista. These flow standards, incorporated from the *Winter-Run Salmon Biological Opinion*, set flow requirements based on the May 1 water year classification forecast. Water year 2005 was forecast to be below normal, requiring mean monthly flows of 3,000 cfs for September; 4,000 cfs for October; and 4,500 cfs for November to December. During these periods, the seven-day running average could not be more than 1,000 cfs below the monthly standard. The actual mean monthly flows were 7,817 cfs for September; 8,487 cfs for October; and 38,232 cfs for November to December. All Rio Vista flow objectives were met during 2005.

D-1641 contains minimum San Joaquin River base and pulse flows measured at Vernalis from the *Winter-Run Salmon Biological Opinion*. These flows vary depending on the San Joaquin Valley water year type. Water year 2005 was forecast to be wet in the San Joaquin Valley.

If the X2 objective is required to be at or west of the Chipps Island location, wet year base flows are set at 3,420 cfs from February to April 14 and from May 16 through June 30. The base flow objective is relaxed to 2,130 cfs when X2 is required to be east of Chipps Island.

D-1641 requires the San Joaquin River spring pulse flow for April 15 to May 15 at Vernalis. This spring pulse flow requirement varies based on the location of X2 during April. However, the CALFED Operations Group may vary the actual timing and duration of the pulse attraction

flow based on real-time monitoring data. The Vernalis Adaptive Management Plan (VAMP), part of the San Joaquin River Agreement and approved in D-1641, contains SWRCB-approved alternate spring pulse flow and export limits. Typically, Reclamation and DWR use this alternate in lieu of D-1641 limits. The pulse flow objective for the spring 2005 VAMP period was 7,020 cfs. During October, D-1641 also requires a pulse attraction flow of up to 2,000 cfs at Vernalis to benefit salmon.

### **Export Standards**

D-1641 includes an export limitation for SWP and CVP. It limits Delta exports to a ratio of Delta inflow to combined water project exports and is expressed as a maximum export rate in percentage of Delta inflow. The maximum percentage of Delta inflow diverted varies by month; for example, in February, it is conditioned by the previous month's Eight River Index. During the San Joaquin River spring pulse flow season, VAMP export rates are typically used as an alternative to the D-1641 spring export limitation, and the CALFED Operations Group may impose additional export restrictions.

The actual export amount is calculated using the three-day average that combines the inflow rate for Clifton Court Forebay (excluding Byron-Bethany Irrigation District diversions from Clifton Court Forebay) added to the Tracy Pumping Plant diversion. The export to inflow ratio limit is reported as either a 3-day or 14-day running average. A 14-day running average of inflows is used unless storage withdrawals from upstream reservoirs are being made for export, in which case a 3-day average of inflows is used. In all water year types, the maximum combined export rate from February through June

is 35 percent of Delta inflow. This rate may be relaxed in February, during years with less precipitation, to between 35 and 45 percent. From July through January, the export to inflow ratio rises to 65 percent.

During January 2005, combined SWP and CVP exports averaged about 30 percent of Delta inflow, far below the 65 percent limitation. Excess conditions during January were beneficial to Delta water quality and prevented the need for export curtailments for water quality protection.

During the more restrictive period from February through June (35 percent objective), exports averaged about 19 percent. Combined exports were curtailed from February 2 through February 7 for the protection of delta smelt. Following the April 15 to May 15 VAMP period, exports continued to be restricted through the end of May due to concern over the level of delta smelt salvage.

From July through the following January, the SWP and CVP are allowed to export at 65 percent of Delta inflow. From July through December 2005, the combined inflow diverted averaged 52 percent. Exports were halted on June 22 to allow for pondweed eradication spraying on Clifton Court Forebay.

### **South Delta Temporary Barriers**

The South Delta Temporary Barriers Project was initiated as a test project in 1991, was extended for five years in 1996, and extended again for seven years in 2001. The project was created partially in response to a 1982 lawsuit filed by the

South Delta Water Agency and consists of four rock barriers across South Delta channels.

These temporary seasonal barriers are designed to improve local water levels and circulation patterns, protect fishery resources, and improve water quality. They are placed across Middle River, Old River at Tracy, Grant Line Canal, and at Head of Old River.

The installation of the Middle River barrier was completed on May 17, 2005, and the Old River barrier near Tracy installation was completed on June 6. The spring barrier at Head of Old River, which functions as part of VAMP, was not installed in 2005 due to high flows on the San Joaquin River. The Grant Line Canal barrier was partially installed by May 2, with the installation completed on July 18. The Middle River barrier was notched on September 15, and removal was completed by November 9. The Old River near Tracy barrier and the Grant Line Canal barrier were both removed by November 30.

The barrier placed at Head of Old River in the fall, which helps keep upstream migrating adult salmon from straying out of the San Joaquin River into interior Delta channels, can help improve dissolved oxygen conditions in the Stockton Ship Channel. The Head of Old River barrier installation was completed on September 30 and removal was completed on November 15.

## Special Study and Biological Surveys

DWR conducts several special studies and biological surveys each year. This

includes a special study in the Stockton Ship Channel during the late summer and early fall to monitor the occurrence of low dissolved oxygen (DO) levels. Low DO levels can potentially cause physiological stress to fish and block the migration of salmon into the San Joaquin River. DWR also conducts biological surveys of benthic organism density and diversity, and of phytoplankton biomass and community composition in the Sacramento-San Joaquin Delta, Suisun Bay, and San Pablo Bay.

## Fall Dissolved Oxygen Study in the Stockton Ship Channel

Historically, during the late summer and early fall, DO levels in the eastern and central portions of the Stockton Ship Channel have dropped below both the 5.0 mg/L and 6.0 mg/L water quality objectives set by SWRCB and the Regional Water Quality Control Board, respectively. These low DO levels are a result of several factors, including low San Joaquin River inflows, warm water temperatures, high biochemical oxygen demand, reduced tidal circulation, and intermittent reverse flow conditions in the San Joaquin River at Stockton.

To help reduce the severity of these low DO conditions, DWR normally installs a temporary rock barrier across the Head of Old River during periods of projected low fall flows in the San Joaquin River. The barrier increases net flows in the San Joaquin River past Stockton by reducing the upstream diversion of flows down Old River.

During the late summer and early fall of 2005, flows in the Stockton Ship Channel were not projected to be sufficient to

alleviate low DO concerns, and in-water construction of the barrier began on September 19. The barrier was in place and fully operational on September 30. Barrier removal began on November 7 and was completed by November 15.

### **Methods**

Monitoring of DO concentrations in the Stockton Ship Channel was conducted by boat on eight monitoring runs, from August 3 to November 15, 2005. During each of the runs, 14 sites were sampled at low water slack tide from Prisoner's Point in the Central Delta to the Stockton Turning Basin at the terminus of the ship channel.

Because monitoring results differ within the channel, sampling stations were grouped into western, central, and eastern regions. The findings of previous fall studies have shown that fall DO levels are typically robust and high (7.0 to 9.0 mg/L) in the western channel; transitional, variable (4.0 to 7.0 mg/L), and stratified in the central channel; and low (3.0 to 5.0 mg/L) and stratified in the eastern channel. The western channel begins at Prisoner's Point and ends at Columbia Cut. The central channel begins one half mile east of Columbia Cut and ends at Fourteen Mile Slough. Finally, the eastern channel begins at Buckley Cove and ends at Rough and Ready Island. The Turning Basin is unique within the channel because it is east of the entry point of the San Joaquin River into the channel and isolated from down-channel flows.

### **Results**

During the period of this study (August 3 to November 15), DO levels varied considerably between regions within the channel (not including the turning

basin) from a low of 4.1 mg/L to a high of 8.9 mg/L. In the western channel, DO concentrations were relatively high and stable, ranging from 6.5 to 8.9 mg/L. The robustness of DO concentrations in this portion of the channel, in comparison to the east and central channels, is apparently due to greater tidal mixing, the absence of conditions creating biochemical oxygen demand, and shorter hydrological residence time. In the central channel, DO concentrations were more variable, ranging from 4.1 to 8.2 mg/L. In the eastern channel, DO levels were the most variable and stratified, ranging from a low of 4.5 mg/L to a high of 8.7 mg/L.

DO concentrations in the Stockton Ship Channel fell below both the State's 5.0 mg/L and 6.0 mg /L objectives in August, September, and the beginning of October 2005. This period coincided with warm temperatures and relatively low net flows in the San Joaquin River past Stockton.

Higher inflows in October coincided with improved DO conditions, with most stations showing levels above the 6.0 mg/L objective, except for DO levels in the central channel and in the turning basin, which were slightly below State objectives. DO levels remained high through the first half of November until the barrier was removed on November 15. The removal of the barrier coincided with a reduction in net flows at Vernalis. Further monitoring operations for the fall 2005 special study were suspended after November 15, 2005.

### **Benthic Survey**

The benthic monitoring program documents changes in the composition, abundance, density, and distribution



of the benthic biota within the upper San Francisco Estuary. Benthic biota are relatively long-lived and can respond to changes in physical factors within the estuary, such as fresh water inflows, salinity, and substrate composition. As a result, benthic data can provide an indication of physical changes occurring within the upper estuary. Because the operation of the SWP can impact flow characteristics of the estuary, and subsequently influence the density and distribution of benthic biota, benthic monitoring is an important biological survey conducted by DWR. In addition, benthic monitoring data are also used to detect and document the presence of newly introduced species within the upper estuary.

Benthic monitoring was conducted at 10 sampling sites distributed throughout the major habitat types within the estuary. The sampling stations are as follows:

- Clifton Court Forebay Intake;
- San Joaquin River at Buckley Cove;
- San Joaquin River at Twitchell Island;
- Old River opposite Rancho del Rio;
- Sacramento River below the Rio Vista Bridge;
- Sacramento River above Point Sacramento;
- Suisun Bay at Bulls Head;
- Grizzly Bay at Dolphin near Suisun Slough;
- San Pablo Bay near Pinole Point; and
- San Pablo Bay near the mouth of the Petaluma River.

Four bottom grab samples for benthic analysis and one sample for sediment analysis were collected monthly at each site during 2005. Samples were analyzed

to identify organisms to the lowest possible identifiable taxon and to count all organisms collected.

DWR maintains a database of benthic organisms located within the upper estuary. The benthic database is dynamic and regularly undergoes peer review and update. When a new organism is identified at any of the sampling stations it is added to the database. In addition, the taxonomic names of organisms on the list are updated when sufficient evidence is produced to warrant such changes.

A total of 152 species of benthic macrofauna were collected in 2005 at the 10 sampling sites. Of the 152 species, 10 species represented 88 percent of all organisms collected. The 10 dominant species were

- the amphipods: *Americorophium stimpsoni*, *Corophium alienense*, *Ampelisca abdita*, and *Gammarus daiberi*;
- the aquatic oligochaete: *Varichaetadrilus angustipenis*;
- the turbificid worm: *Limnodrilus hoffmeisteri*;
- the sabellid polychaetes: *Laonome* sp. A and *Manayunkia speciosa*; and
- the Asian clams: *Corbula amurensis*, and *Corbicula fluminea*.

Of the 10 dominant species, *Ampelisca abdita* and *Corbula amurensis* represent macrofauna that inhabit a typically high saline environment and were found in San Pablo Bay, Suisun Bay, and Grizzly Bay. *Corophium alienense*, *Americorophium stimpsoni*, *Limnodrilus hoffmeisteri*, and *Laonome* sp. A tolerate a wider range of salinity. They were collected both in the

higher saline western sites, and the more brackish to fresh water eastern sites, such as the San Joaquin River at Twitchell Island and the Sacramento River above Point Sacramento. The remaining four species, *Manayunkia speciosa*, *Gammarus daiberi*, *Varichaetadrilus angustipenis*, and *Corbicula fluminea* are predominantly fresh water species and were collected at sites east of Suisun Bay.

### **Phytoplankton and Chlorophyll *a* Survey**

Monthly sampling of chlorophyll *a* concentrations and phytoplankton was conducted in 2005 by DWR's Bay-Delta Monitoring Branch at 13 stations throughout the upper San Francisco Estuary. These stations are

- Sacramento River at Greene's Landing/Hood and above Point Sacramento;
- San Joaquin River at Vernalis, Buckley Cove, and Potato Point;
- Old River opposite Rancho Del Rio;
- Disappointment Slough near Bishop Cut;
- Frank's Tract near Russo's Landing;
- Suisun Bay at Bull's Head near Martinez and off Middle Point near Nichols;
- Grizzly Bay at Dolphin near Suisun Slough; and
- San Pablo Bay near Pinole Point and near Mouth of Petaluma River.

Chlorophyll *a* is one of the main groups of pigments contained in the algal species that make up phytoplankton. Phytoplankton are small, free-floating or attached algae that can be tiny, single-celled organisms (less than 5 µm in diameter) or larger colonial organisms. Phytoplankton are an important source

of food in the estuary for zooplankton, invertebrates, and some species of fish. Phytoplankton biomass is an indicator of the status of primary productivity in the estuary. Chlorophyll *a* concentration was measured for each of the 13 monitoring stations to estimate overall phytoplankton biomass in the estuary. Phytoplankton samples were collected and analyzed separately to determine which species were present in the estuary.

Monthly chlorophyll *a* concentrations throughout much of the estuary were relatively low when compared to historical data. Of the 156 samples taken in 2005, 95.5 percent had chlorophyll *a* levels below 15 µg/L, and 85.9 percent of the samples were below 5 µg/L. The mean chlorophyll *a* concentration for all samples in 2005 was 3.48 µg/L, and the median value was 1.88 µg/L. In 2004, median chlorophyll *a* concentrations were higher, with a mean of 5.3 µg/L and a median of 2.0 µg/L. The maximum chlorophyll *a* concentration in 2005 was 21.5 µg/L, recorded in August at the San Joaquin River at Vernalis monitoring site. This maximum was considerably lower than the 2004 peak of 94.2 µg/L. The minimum chlorophyll *a* concentration in 2005 was 0.4 µg/L, recorded in February at the San Joaquin River at Potato Point monitoring station.

The samples with chlorophyll *a* levels above 15 µg/L were all measured in the San Joaquin River at Vernalis, Buckley Cove, and Disappointment Slough near Bishop Cut. These three monitoring sites also had the highest chlorophyll *a* concentrations measured in 2004.

Phytoplankton biomass and resulting chlorophyll *a* concentrations in some areas of the estuary may be influenced by

extensive filtration of the water column by the introduced Asian clam, *Corbula amurensis*. Well-established benthic populations of *C. amurensis* in Suisun and San Pablo bays are thought to have contributed to the low chlorophyll *a* concentrations (and increased water clarity) measured in these westerly bays since the mid-1980s.

In addition to monitoring for chlorophyll *a*, water samples were analyzed for pheophytin. Pheophytin is a primary degradation product of chlorophyll *a*, and its relative concentration is useful for estimating the general physiological state of phytoplankton populations. When phytoplankton are actively growing, the concentrations of pheophytin are normally expected to be low in relation to chlorophyll *a*. The mean pheophytin *a* concentration for all samples in 2005 was 1.53 µg/L, and the median value was 0.97 µg/L. The maximum pheophytin *a* concentration was 15.10 µg/L, recorded at the San Joaquin River near Vernalis monitoring station. The minimum pheophytin *a* concentration was 0.13 µg/L, recorded at the San Pablo Bay near the mouth of Petaluma River.

Phytoplankton populations consisted of (families in order of abundance): Bacillariophyceae (diatoms), Chlorophyceae (green algae), Cryptophyceae (cryptomonads), Cyanophyceae (blue-green algae), unidentified flagellates, Euglenophyceae (euglenoids), Chrysophyceae (yellow-brown algae), and Dinophyceae (dinoflagellates). Of the genera identified, the following were the 10 most common, in order of abundance: *Cyclotella*, *Skeletonema*, *Monoraphidium*, *Cryptomonas*, *Rhodomonas*, *Aulacoseira*,

unidentified flagellates, unidentified centric diatoms, *Aphanizomenon*, and *Pseudanabaena*.

## Activities Outside the Delta

Activities conducted outside the Delta included scheduled routine SWP water quality monitoring, as well as special studies. Most of these special studies were in response to fish and wildlife and water quality issues of importance to agencies that provide domestic water supply. These agencies face increasingly stringent regulations and rely on SWP deliveries of high quality raw water.

## Water Quality Monitoring

The Division of Operations and Maintenance collects detailed water quality information on the concentration and distribution of chemical, biological, and physical parameters at 40 aqueduct and reservoir sites located throughout SWP facilities. Stations are situated south of the Delta at reservoirs, pumping plants, power plants, and check structures of the South Bay, Coastal Branch, and California Aqueduct. Other monitoring activities are conducted on the North Bay Aqueduct, Feather River, and at State reservoirs north of the Delta—Lake Oroville, Antelope Lake, Frenchman Lake, and Lake Davis.

The SWP Water Quality Program was established in 1968 when the California Aqueduct was completed. More than 200 different chemical constituents are monitored monthly or quarterly. In addition, 13 automated stations are maintained for continuous monitoring of aqueduct water.

DWR maintains a staff at its own Bryte Laboratory in West Sacramento, who process and analyze most SWP laboratory water quality samples. DWR also contracts for some laboratory services. Water samples from 15 SWP stations are analyzed monthly to determine concentrations of dissolved solids, nutrients, chloride, sulfate, sodium, trace metals, and other constituents. Herbicides, pesticides, organic substances, and phytoplankton are monitored three times per year.

During 2005, bromide, total and dissolved organic carbon, taste and odor producing algae, and turbidity were factors in defining water quality. Dissolved metals, pesticides, and other constituents were at very low levels, well below treated drinking water standards, and were not a factor in water treatment. Bromide levels at SWP locations were lowest from February through August, and peaked in the early fall and winter, until winter runoff in the Delta increased outflow. Dissolved and total organic carbon are the lowest from March through October and increase, often significantly, with the first heavy Delta outflow event in winter. Turbidity, taste, and odor events are sporadic and usually seasonal. Selected SWP water quality data are available electronically through DWR's website at <http://www.omwq.water.ca.gov>. Table 4-1 presents laboratory results of sampling at several representative stations in 2005.

### **Nonproject Water Turn-ins**

Turn-ins are authorized during periods of reductions in approved Table A amounts. DWR previously accepted turn-ins in the early 1990s in response to the 1987–1992 drought. Nonproject groundwater was accepted into SWP facilities provided it

did not result in the degradation of SWP water quality, toxicity to fish and wildlife, or adverse changes in the suitability of the water for beneficial uses.

In 2001, DWR established new interim criteria to review the water quality of the turn-ins using a two-tiered approach. Tier 1 programs have a “no adverse impact” criteria and are tied to historical water quality levels in California. Programs meeting Tier 1 criteria are generally approved by DWR without referral to the State Water Contractor facilitation group. Tier 2 programs involve water quality levels that exceed the historical water quality in the California Aqueduct and have the potential to cause adverse impacts to the State Water Contractors. Tier 2 programs are referred to the State Water Contractor facilitation group for review and recommendations to DWR. DWR considers all factors before making a decision on the proposed water turn-in.

Turn-ins not only add versatility to SWP water operations, but can also improve SWP water quality for some constituents. Turn-ins can reduce total dissolved solids, conductivity, bromide, and organic carbon in the California Aqueduct. Slight increases in nitrate, sulfate, and arsenic often result. During 2005, there were no water turn-ins to the SWP.

## **Municipal Water Quality Investigations Program**

The Sacramento-San Joaquin Delta provides drinking water for more than 24 million people in California. Because the Delta and its tributaries are located in a relatively unprotected watershed, water quality degradation is possible from many sources, including industrial and municipal

**Table 4-1. 2005 Mean Water Quality at Selected State Water Project Locations**

| Constituent               | Units <sup>a</sup>        | Detection Limit | Thermalito Afterbay at Outlet | North Bay Aqueduct Barker Slough Pumping Plant | Delta-Mendota Canal Upstream of McCabe Rd | California Aqueduct       |                                   |                           |                             |                               |                                           |
|---------------------------|---------------------------|-----------------|-------------------------------|------------------------------------------------|-------------------------------------------|---------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------------|-------------------------------------------|
|                           |                           |                 |                               |                                                |                                           | Banks Delta Pumping Plant | O'Neill Forebay Outlet (Check 13) | Kettleman City (Check 21) | Near Highway 119 (Check 29) | Tehachapi Afterbay (Check 41) | Devil Canyon Afterbay Near San Bernardino |
| Alkalinity                | mg/L as CaCO <sub>3</sub> | 1               | 41                            | 102                                            | 70                                        | 65                        | 71                                | 71                        | 72                          | 70                            | 71                                        |
| Antimony                  | mg/L                      | 0.001           | <0.001                        | <0.001                                         | <0.001                                    | <0.001                    | <0.001                            | <0.001                    | <0.001                      | NR                            | NR                                        |
| Arsenic                   | mg/L                      | 0.001           | <0.001                        | 0.002                                          | 0.002                                     | 0.002                     | 0.002                             | 0.002                     | 0.002                       | 0.002                         | 0.002                                     |
| Beryllium                 | mg/L                      | 0.001           | <0.001                        | <0.001                                         | <0.001                                    | <0.001                    | <0.001                            | <0.001                    | <0.001                      | <0.001                        | <0.001                                    |
| Boron                     | mg/L                      | 0.1             | <0.1                          | 0.2                                            | 0.2                                       | 0.1                       | 0.2                               | 0.2                       | 0.2                         | 0.2                           | 0.1                                       |
| Bromide                   | mg/L                      | 0.01            | <0.01                         | 0.05                                           | 0.17                                      | 0.16                      | 0.18                              | 0.19                      | 0.19                        | 0.18                          | 0.17                                      |
| Calcium                   | mg/L                      | 1               | 8                             | 16                                             | 20                                        | 18                        | 20                                | 20                        | 20                          | 19                            | 20                                        |
| Chloride                  | mg/L                      | 1               | <1                            | 24                                             | 58                                        | 53                        | 61                                | 64                        | 63                          | 59                            | 57                                        |
| Chromium                  | mg/L                      | 0.001           | <0.001                        | 0.001                                          | 0.002                                     | 0.002                     | 0.002                             | 0.002                     | 0.002                       | 0.002                         | 0.002                                     |
| Copper                    | mg/L                      | 0.001           | <0.001                        | 0.003                                          | 0.002                                     | 0.002                     | 0.002                             | 0.002                     | 0.002                       | 0.002                         | 0.003                                     |
| Fluoride                  | mg/L                      | 0.1             | <0.1                          | <0.1                                           | <0.1                                      | <0.1                      | <0.1                              | <0.1                      | <0.1                        | <0.1                          | <0.1                                      |
| Hardness                  | mg/L as CaCO <sub>3</sub> | 1               | 35                            | 98                                             | 97                                        | 86                        | 96                                | 96                        | 97                          | 93                            | 94                                        |
| Iron                      | mg/L                      | 0.005           | <0.005                        | 0.048                                          | 0.010                                     | 0.021                     | 0.021                             | 0.010                     | 0.010                       | 0.012                         | 0.007                                     |
| Lead                      | mg/L                      | 0.001           | <0.001                        | <0.001                                         | <0.001                                    | <0.001                    | <0.001                            | <0.001                    | <0.001                      | <0.001                        | <0.001                                    |
| Magnesium                 | mg/L                      | 1               | 4                             | 14                                             | 11                                        | 10                        | 12                                | 12                        | 12                          | 11                            | 11                                        |
| Manganese                 | mg/L                      | 0.005           | <0.005                        | 0.068                                          | <0.005                                    | 0.016                     | 0.005                             | <0.005                    | <0.005                      | <0.005                        | 0.010                                     |
| Nitrite + Nitrate         | mg/L as N                 | 0.01            | <0.01                         | 0.24                                           | NR                                        | 0.66                      | 0.80                              | 0.78                      | 0.79                        | 0.76                          | 0.79                                      |
| Organic Carbon, Dissolved | mg/L as C                 | 0.1             | NR                            | 6.8                                            | 3.7                                       | 3.7                       | 4.0                               | 3.8                       | 3.6                         | 3.4                           | 3.7                                       |
| Organic Carbon, Total     | mg/L as C                 | 0.1             | NR                            | 7.6                                            | 3.9                                       | 3.9                       | 4.1                               | 3.7                       | 3.8                         | 3.7                           | 3.9                                       |
| Phosphate-Ortho           | mg/L as P                 | 0.01            | <0.01                         | 0.12                                           | NR                                        | 0.07                      | 0.09                              | 0.09                      | 0.15                        | 0.08                          | 0.09                                      |
| Phosphorus-Total          | mg/L                      | 0.01            | 0.01                          | 0.25                                           | NR                                        | 0.12                      | 0.12                              | 0.12                      | 0.12                        | 0.12                          | 0.11                                      |
| Selenium                  | mg/L                      | 0.001           | <0.001                        | <0.001                                         | 0.001                                     | <0.001                    | 0.001                             | 0.001                     | <0.001                      | <0.001                        | <0.001                                    |
| Sodium                    | mg/L                      | 1               | 3                             | 30                                             | 46                                        | 40                        | 44                                | 46                        | 46                          | 42                            | 42                                        |
| Specific Conductance      | µS/cm                     | 1               | 87                            | 323                                            | 423                                       | 364                       | 418                               | 423                       | 423                         | 402                           | 403                                       |
| Sulfate                   | mg/L                      | 1               | 2                             | 25                                             | 46                                        | 33                        | 38                                | 39                        | 39                          | 35                            | 36                                        |
| Total Dissolved Solids    | mg/L                      | 1               | 57                            | 188                                            | 240                                       | 212                       | 239                               | 242                       | 246                         | 228                           | 221                                       |
| Turbidity                 | N.T.U.                    | 1               | 3                             | 56                                             | 19                                        | 13                        | 8                                 | 7                         | 9                           | 10                            | 3                                         |
| Zinc                      | mg/L                      | 0.005           | <0.005                        | <0.005                                         | <0.005                                    | <0.005                    | <0.005                            | <0.005                    | <0.005                      | <0.005                        | <0.005                                    |

Note: All reported constituents are the yearly mean of laboratory analytical values sampled monthly. Nondetectable values were not used in the calculation of the yearly mean.

<sup>a</sup>mg/L = milligrams per liter; µS/cm = microSiemens per centimeter; N.T.U. = nephelometric turbidity unit; NR = No data recorded at this location.

wastewater discharges, storm water runoff from cities, agricultural discharges, recreational activities, abandoned mines, and illegal dumping. The Municipal Water Quality Investigations Program (MWQI) was established to evaluate the suitability of Delta water as a drinking water source, to identify sources of water quality degradation, and to evaluate means of eliminating or preventing degradation.

Participants in the program include the municipal water contractors of the SWP and Contra Costa Water District. Program advisors include representatives of participating agencies, including the U.S. Environmental Protection Agency (EPA), DHS, and California Urban Water Agencies.

Components of the MWQI Program include the following:

- Evaluation of the water quality impacts at drinking water intakes from the proposed Delta wetlands storage project;
- The study and fractionation of organic carbon molecules from Delta carbon sources;
- Evaluation of proposed CALFED restoration actions in terms of drinking water impacts;
- Working with the State and regional water quality control boards to develop drinking water policy as part of the basin plan;
- Evaluation of water quality effects from the Jones Tract Flood;
- Development of models to predict water quality based on sources and loads; and
- Investigation of new and increasing sources of pollution, including urban sources.

Collectively, these and other MWQI studies and activities are designed and conducted to address major water quality and water supply issues. Each study or activity serves to discover, test, and assess possible solutions to problems in the Delta and other watersheds of the SWP. Overall, the results of these studies and activities are intended to assure that future demands for safe, potable water supplies can be met.

Because water quality concerns change rapidly with new drinking water regulations and water quality issues, the MWQI Program must be flexible enough to adapt to changing requirements. The former Delta Health Aspects Monitoring and Delta Island Drainage Investigations Programs merged into the MWQI Program in 1990, and the program continues to evolve.

The program's initial focus was to compile a comprehensive database on the quality of drinking water in the Delta. Since then, it has investigated ways of managing Delta lands and waters to minimize adverse impacts on drinking water quality. It has also identified sources of contaminants in the Delta and assessed their significance for drinking water quality and water treatment. Drinking water standards are more difficult to meet using Delta source waters because natural organic materials from agricultural drainage and watershed runoff potentially contain contaminants of concern.

The current MWQI Program has progressed from monitoring, problem identification, and assessment stages to the development of studies on source water improvement and management. The MWQI Program also continues to provide CALFED with expertise for assessing potential effects

from proposed Delta projects. The *2001 California State Water Project Watershed Sanitary Survey Report*, the third in a series for the SWP, provides this information in the latest five-year update from the original sanitary survey required by DHS in 1990. A searchable CD-ROM version of the report is available on the MWQI website at <http://www.wq.water.ca.gov/mwqi/pubs.cfm>. The next update of the sanitary survey will be available in mid-2007.

DWR, the Bureau of Land Management, Ducks Unlimited, DFG, and the Nature Conservancy partnered on a CALFED grant to develop a wildlife friendly farm management project on the Delta's Staten Island. The MWQI Program is responsible for the project's water quality monitoring component. Monitoring water quality on Staten Island provides a unique opportunity to examine the effects of agriculture management practices on water quality, the quantity of carbon exported off the island, and the effects of water management practices on agricultural lands under different soil regimes found in the Delta. Access to the island's pump facilities provides an unprecedented opportunity to measure carbon loads directly. Results from these experiments will provide direct measurement of carbon quantities discharged off a Delta island.

Starting at the end of October 2004, when the fields were first flooded, samples were collected weekly from two fields. Sampling continued until the fields were drained of water in early 2005. Carbon loading studies began in fall 2005 and will continue through fall 2007. Following the completion of this second portion of monitoring, a report on the results will be prepared for Ducks Unlimited.

It is anticipated that the carbon loading studies may be submitted to a journal for publication and wider dissemination in the scientific community.

The MWQI Program received a CALFED grant in 2000 to purchase and install three automated carbon analyzers in the Delta. In summer 2001, the first analyzer began operating at Banks Pumping Plant. The analyzer automatically samples the exported water, determines the total organic carbon and dissolved organic carbon levels, and sends the data to Sacramento, where it is posted on the California Data Exchange Center (CDEC) website.

The second analyzer started operation in winter 2002, and is located at the Hood water quality monitoring station on the Sacramento River. The third analyzer started operation in March 2005 at the new San Joaquin River monitoring station near Vernalis (McCune Station). Construction of this station was partially funded by a 2002 CALFED grant.

Automated carbon analyzers can sample every hour compared to the historical grab-sample program that only sampled weekly or monthly. The more frequent data, coupled with flow measurements, will allow for the calculation of mass transport and loading of carbon from the two main Delta tributaries. These data, currently posted to DWR's CDEC website, will also be used by modelers to refine the Delta Simulation Model 2 (DSM2) for calculation of organic carbon transport through the Delta.

The MWQI Program, in partnership with the Dry Creek Conservancy, also received Proposition 13 and CALFED grant funding

of \$595,000 in 2004 to assess water quality and loads of parameters of concern from an urban drain in metropolitan Sacramento in a watershed that includes several areas of rapid development. The Natomas East Main Drainage Canal (NEMDC), also known as Steelhead Creek, has been part of the routine MWQI monitoring program since 1997. The grant project expanded the scope of monitoring to include installation of a real-time stage recorder to determine daily flows, installation of an autosampler station to more accurately determine loads, and preparation of a GIS of land use and impervious cover in the NEMDC watershed to serve as a basis for change detection analysis in subsequent years.

From 2003 to 2004, MWQI staff conducted a collaborative special study on trihalomethane (THM) reactivity of organic carbon for carbon-rich soils of the Delta. Organic carbon of soil origin in Delta waterways results in elevated organic carbon levels in Delta waterways. Elevated organic carbon in drinking water source waters represents a major public health concern because organic carbon reacts with chlorine, a disinfectant currently used by most water utilities with entitlement to Delta source waters, and forms harmful disinfection by-products (DBPs), such as THMs. To date, the nature and properties of reactive organic carbon has been poorly characterized. MWQI staff collected representative soils from various Delta islands from the soil surface down to 10 feet. Organic carbon from the soils was extracted with different extractants and fractionated into relatively homogeneous isolates of distinct properties for determination of THM reactivity. MWQI staff has summarized findings of this study into three peer-reviewed manuscripts, one of which appeared in *Water Research* in

May 2005. The other two manuscripts are being revised for publication in *The Journal of Environmental Quality*.

A two-year MWQI data summary report, entitled *The Municipal Water Quality Investigations Program Summary and Findings from Data Collected from October 2001 through September 2003*, was distributed in August 2005. This report summarizes and interprets MWQI grab-sampling data collected from 11 MWQI stations. The report is available in hard copy and searchable CD-ROM, as well as online on the MWQI website at <http://www.wq.water.ca.gov/mwqi/>.

## Bryte Chemical Laboratory

Bryte Chemical Laboratory was established in 1951 and certified in 1990 by the DHS Environmental Laboratory Accreditation Program to perform drinking water and wastewater analyses. The laboratory continues to perform the vast majority of chemical and other related analyses required to support DWR's water quality programs. Every year, thousands of water samples are routinely analyzed for minerals, nutrients, metals, pesticides, herbicides, volatile organic compounds, and many other chemical constituents.

In 2005, Bryte Chemical Laboratory upgraded the lab's capability to detect and analyze trace metals in water and wastewater with the purchase of a Perkin Elmer, ICP/MS, DRCE instrument system. The ICP/MS, DRCE is equipped with new collision cell technology that removes matrix and polyatomic interferences normally encountered when analyzing trace metals in water and wastewater. Removal of these interferences allows for lower detection limits, in the parts



per trillion ranges, for trace metals such as arsenic, selenium, vanadium, and chromium. The new ICP/MS, DRCE instrumentation became fully operational and was certified in October 2005 to perform trace metal analyses using EPA Method 200.8. The new instrumentation also performs EPA Method 1643, an ultra-low level trace metal analysis requirement for Northern District water quality programs. These specialized analyses were formerly performed through Bryte Lab's contract laboratories. The program savings in analytical costs alone for Northern District will be well over \$150,000 per year.

Bryte Chemical Laboratory has continued to manage a variety of analytical contracts with other State agencies and several outside laboratories in accordance with the master contract policy approved in fiscal year 1994–1995. The laboratory works in conjunction with the Quality Assurance and Quality Control Section to replace these contracts as they expire each fiscal year. In 2005, no significant contracts expired or were required to be replaced.

Security and protection of the SWP has continued to be a primary goal for DWR since September 11, 2001. To help protect the SWP from biochemical and chemical agents, Bryte Laboratory has continued in 2005 to be an active member in a group of laboratories called the California Association of Mutual Aid Laboratories Network (CAMAL Net) headed by DHS. The laboratory network's main objective is to voluntarily assist DHS in the analysis of chemical agents in water quality samples should a natural disaster or terrorist event occur in California. The assistance to DHS is only required should the analytical capacity of DHS be exceeded or to confirm the presence or absence of chemical

agents in water quality samples provided by DHS. Should DHS activate CAMAL Net, members will be notified, and water quality samples that are determined to be safe to handle by DHS will be shipped to the participating CAMAL Net laboratories. In 2005, Bryte Laboratory was classified as a Level II participating laboratory in the CAMAL Net organization.

## Suisun Marsh Activities

Suisun Marsh consists of approximately 59,000 acres of tidal and managed brackish water wetlands and 30,000 acres of bays and sloughs. It is the largest contiguous brackish marsh remaining in the United States. Situated in southern Solano County, west of the Sacramento-San Joaquin Delta and north of Suisun Bay, the marsh encompasses more than 10 percent of California's remaining natural wetlands. In addition, the marsh is the resting and feeding ground for thousands of waterfowl migrating on the Pacific Flyway.

Since the early 1970s, the California Legislature, SWRCB, Reclamation, DFG, Suisun Resource Conservation District (SRCD), DWR, and other agencies have focused on preserving the Suisun Marsh as a unique environmental resource. As part of its responsibility for protecting Suisun Marsh, SWRCB included water quality standards for the marsh in Term 10 of D-1641, which applies to SWP and CVP operations. D-1641 was adopted by SWRCB on December 29, 1999. In 1987, DWR, Reclamation, DFG, and SRCD signed the Suisun Marsh Preservation Agreement (SMPA) (see sidebar). SMPA contains provisions for actions to control channel water and soil salinity to mitigate impacts of the SWP, CVP, and other upstream

## Suisun Marsh Preservation Agreement

In 1986, federal legislation (Public Law 99-546) authorized funds to Reclamation to protect Suisun Marsh. On March 2, 1987, DWR, Reclamation, DFG, and SRCD signed the Suisun Marsh Preservation Agreement (SMPA). The objective of SMPA is to assure that Reclamation and DWR mitigate for any adverse effects of the CVP and SWP on managed wetlands in the marsh, as well as a portion of the adverse effects of other upstream diversions. Under the original agreement, this objective is primarily accomplished by constructing large-scale facilities in the marsh to maintain a dependable supply of adequate quality water within Suisun Marsh channels. A component of the large-scale facilities is the Suisun Marsh Salinity Control Gates facility, which began operating in November 1988.

On August 4, 1995, the Suisun Marsh Coordinators, representing the four agencies party to SMPA, began discussions directed at updating the agreement, pursuant to SMPA Articles 4 and 17. Representatives from Reclamation, DWR, DFG, and SRCD established an ad hoc Negotiating Team, Technical Group, Drafting Committee, and Environmental Documentation Team. Beginning September 1995, the SMPA Negotiating Team met monthly in Sacramento and made significant progress in developing the basis to amend the agreement. Representatives from the SWP and CVP contractors actively participated in the negotiations. Updating SMPA will reflect future hydrologic and salinity conditions in the Suisun Marsh as prescribed by the SWRCB 1995 Water Quality Control Plan and will place more emphasis on improving water and land management practices and facilities on managed wetlands.

diverters on managed wetlands in Suisun Marsh.

### **Revised Suisun Marsh Preservation Agreement**

In 2005, SMPA parties completed the Revised SMPA. This agreement includes only those actions that would not cause any taking of listed species, as identified by the regulatory agencies. The Revised SMPA includes the following actions: operation of the initial facilities and Suisun Marsh

Salinity Control Gates; channel water salinity standards consistent with D-1641; water manager program; portable pumps program; Individual Ownership Adaptive Management Habitat Plan updates; drought response fund; and replacing turnouts on the Roaring River Distribution System. The SMPA parties also completed the Revised Suisun Marsh Monitoring and Suisun Marsh Mitigation agreements.

## **Operation and Maintenance**

### ***Initial Facilities Maintenance***

Several facilities constructed by DWR and Reclamation operate in the Suisun Marsh. They are identified in the *Plan of Protection for the Suisun Marsh* and the 1987 SMPA. These facilities provide lower salinity water to managed wetlands. The initial facilities, including the Roaring River Distribution System, Morrow Island Distribution System (MIDS), and Goodyear Slough Outfall, were constructed in 1979 and 1980. The Suisun Marsh Salinity Control Gates were installed and became operational in 1988. During 2005, DWR's Delta Field Division performed routine maintenance on all initial facilities in the Suisun Marsh, including MIDS.

### ***Morrow Island Distribution System (MIDS) Fish Screen and Alternatives***

In 1997, the USFWS issued a biological opinion requiring Reclamation and DWR to install a fish screen at the intake of MIDS on Goodyear Slough. Reclamation requested USFWS reinitiate consultation in a November 2002 memorandum and committed to reinitiate Section 7 consultation on the MIDS maintenance project after completion of the Habitat Management, Preservation, and Restoration Plan for the Suisun Marsh programmatic Environmental Impact Statement/Report. In March 2003, the USFWS reinitiated consultation and amended Term and Condition number 3, granting Reclamation and DWR until May 9, 2006, to begin construction of a screen or implement an approved mitigation or conservation alternative.

Because the cost of adding a fish screen to the MIDS intake structure is likely to be high, and the effectiveness of such screening to conserve Suisun Marsh

fish populations is unknown, DWR and Reclamation proposed to investigate fish entrainment at the MIDS intake with regard to fishery populations in Goodyear Slough and to evaluate whether screening the diversion would provide substantial benefits to local populations of listed fish species. The objectives of this sampling project are: (1) to determine what species of fish and what life stages are entrained by the MIDS intake facility; and (2) to quantitatively assess whether certain species of fish are more likely to be entrained than others.

Sampling for the first year of the study began in September 2004 and continued through May 2005. The second year of sampling began in October 2005 and will continue through May 2006. A final report is anticipated by early 2007.

### ***Suisun Marsh Salinity Control Gates***

The Suisun Marsh Salinity Control Gates are operated from October 1 of the current year through May 31 of the following year, as needed, to meet salinity standards; otherwise, they are placed in an open position to minimize fish concerns related to predation and impedance. In the past, the gates' operation and installation or removal of the flashboards has varied due to salinity conditions, fisheries agencies' requests for sensitive species concerns, or special studies and repairs.

### ***Gates Status for 2004–2005***

During the 2004–2005 control season (October 2004 through May 2005), the fall 2004 fish passage study continued with modification to the boat lock in its fourth and final year as an alternative for passage, instead of flashboards as in previous years. The gates were operated for both the fish

study and for salinity control during this control season.

From September 28 through October 11, 2004, Phase I was carried out with gates open, flashboards out, and boat lock gates closed. From October 12 through October 25, Phase II was in action with gates operated to full-bore, boat lock open, and flashboards installed. In Phase III, from October 26 through November 9, the gates were operated full-bore with flashboards installed and boat lock closed for fish passage study. Thereafter, the gates were operated to control salinity with the boat lock gates held open until February 9, 2005, when salinity levels were not a concern any longer and the gates were held open. However, the flashboards remained installed until May 20, when conditions were so fresh that flashboard removal was ordered. During the 2004–2005 control season, many gate problems occurred. Gate #1 was in a closed position due to cable failure at the start of the fish study in late September, and the Gate #3 cable failed on January 14, 2005, leaving only Gate #2 functional thereafter to control salinity. Repair on both gates was not completed until late summer of 2005. Despite these issues, compliance was met at all stations.

## Monitoring

### *Water Quality and Compliance*

Suisun Marsh channel water salinity standards were specified in SWRCB WR 98-09 for seven compliance stations. Four of these—National Steel (S-64), Beldon's Landing (S-49), Volanti (S 42), and Sunrise (S-21)—are located within the marsh. A fifth, Collinsville (C-2), is located in the western Delta (Figure 4-2). Two remaining sites located in the western marsh, Morrow Island (S-35) and Ibis (S-97), are

specified as baseline monitoring stations because of the SWP's minimal control on salinity levels at these locations. In 2000, SWRCB amended D-1641 to remove the compliance monitoring requirement for these stations. However, both remain active as water salinity monitoring stations. To be consistent with D-1641, the June 2005 Revised SMPA Monitoring Agreement had the same specification for S97 and S35 to become monitoring stations, instead of compliance stations. Details of the agreement can be viewed online at: [http://iep/suisun/smpa/RevisedSMPAMonitoringAgreement\\_20JUN2005.pdf](http://iep/suisun/smpa/RevisedSMPAMonitoringAgreement_20JUN2005.pdf).

Salinity levels remained well within compliance during the period from October 1, 2004, through May 31, 2005. (See DWR's annual report to SWRCB, *Suisun Marsh Monitoring Program Data Summary: 2005 Water Year*, for details.)

## Suisun Marsh Expenditure History

Suisun Marsh expenditures and reimbursements administered by DWR for calendar years 1968 through 2005 are summarized in Table 4-2. From 1968 through December 31, 2005, DWR disbursed more than \$113.9 million SWP funds for planning, design, environmental documentation, construction, maintenance, monitoring, mitigation, and permit compliance in support of implementing the plan of protection for Suisun Marsh through the SMPA and for meeting standards set by SWRCB. Reclamation has reimbursed DWR about \$44.8 million (40 percent), and the State's General Fund has reimbursed about \$9.4 million (8 percent). These figures do not include up-front payments made by Reclamation for staff and other direct costs, as well as about \$5.7 million in

Reclamation interest payments during 1988 and 1989.

Annual figures are reported in Table 4-2 for DWR's up-front payments, Reclamation reimbursements, General Fund reimbursements, and DWR's cumulative expenditure balance.



**Figure 4-2. Compliance and Monitoring Stations in the Suisun Bay and Marsh**

**Table 4-2. Suisun Marsh Expenditures and Reimbursements Administered by DWR (in dollars)**

| Year<br>[1] | Reach 305<br>Costs<br>[2] | General<br>Fund<br>Payment<br>[3] | Adjustment<br>for General<br>Fund Payment*<br>[4] | USBR<br>Invoice<br>Payment<br>[5] | Interest Payment<br>Credited Back to<br>Contractors<br>[6] | Net SWP<br>Costs<br>[2] through [6]<br>[7] | Recreation<br>Costs<br>[8] | SWP Contractors'<br>Costs<br>[7] minus [8 ]<br>[9] |
|-------------|---------------------------|-----------------------------------|---------------------------------------------------|-----------------------------------|------------------------------------------------------------|--------------------------------------------|----------------------------|----------------------------------------------------|
| 1968        | 10,571                    |                                   |                                                   |                                   |                                                            | 10,571                                     | 1,480                      | 9,091                                              |
| 1969        | 34,181                    |                                   |                                                   |                                   |                                                            | 34,181                                     | 4,785                      | 29,396                                             |
| 1970        | 23,343                    |                                   |                                                   |                                   |                                                            | 23,343                                     | 3,268                      | 20,075                                             |
| 1971        | 1,042                     |                                   |                                                   |                                   |                                                            | 1,042                                      | 146                        | 896                                                |
| 1972        | 47                        |                                   |                                                   |                                   |                                                            | 47                                         | 7                          | 40                                                 |
| 1973        | 0                         |                                   |                                                   |                                   |                                                            | 0                                          | 0                          | 0                                                  |
| 1974        | 0                         |                                   |                                                   |                                   |                                                            | 0                                          | 0                          | 0                                                  |
| 1975        | 2,709                     |                                   |                                                   |                                   |                                                            | 2,709                                      | 379                        | 2,330                                              |
| 1976        | 32,960                    |                                   |                                                   |                                   |                                                            | 32,960                                     | 4,614                      | 28,346                                             |
| 1977        | 37,475                    |                                   |                                                   |                                   |                                                            | 37,475                                     | 5,246                      | 32,229                                             |
| 1978        | 350,831                   |                                   |                                                   |                                   |                                                            | 350,831                                    | 49,117                     | 301,714                                            |
| 1979        | 3,660,099                 |                                   |                                                   |                                   |                                                            | 3,660,099                                  | 512,568                    | 3,147,531                                          |
| 1980        | 5,005,759                 |                                   |                                                   |                                   |                                                            | 5,005,759                                  | 701,227                    | 4,304,532                                          |
| 1981        | 2,964,974                 |                                   |                                                   |                                   |                                                            | 2,964,974                                  | 415,096                    | 2,549,878                                          |
| 1982        | 2,955,705                 |                                   |                                                   | (2,500,000)                       |                                                            | 455,705                                    | 413,801                    | 41,904                                             |
| 1983        | 2,754,094                 |                                   |                                                   |                                   |                                                            | 2,754,094                                  | 385,574                    | 2,368,520                                          |
| 1984        | 2,418,344                 |                                   |                                                   |                                   |                                                            | 2,418,344                                  | 338,567                    | 2,079,777                                          |
| 1985        | 2,332,773                 |                                   |                                                   |                                   |                                                            | 2,332,773                                  | 326,587                    | 2,006,186                                          |
| 1986        | 6,495,322                 |                                   |                                                   |                                   |                                                            | 6,495,322                                  | 909,344                    | 5,585,978                                          |
| 1987        | 13,600,701                |                                   |                                                   |                                   |                                                            | 13,600,701                                 | 1,904,099                  | 11,696,602                                         |
| 1988        | 7,456,364                 |                                   |                                                   | (17,368,725) <sup>b</sup>         | (2,039,752)                                                | (11,952,113)                               | 1,043,891                  | (12,996,004)                                       |
| 1989        | 2,341,960                 | (9,478,000)                       | 6,634,600                                         | (1,219,691) <sup>b</sup>          | (283,857)                                                  | (2,004,988)                                | 327,874                    | (2,332,862)                                        |
| 1990        | 3,030,010                 |                                   |                                                   | (695,450)                         |                                                            | 2,334,560                                  | 424,202                    | 1,910,358                                          |
| 1991        | 6,223,042                 |                                   |                                                   | (2,925,429)                       |                                                            | 3,297,613                                  | 871,226                    | 2,426,387                                          |
| 1992        | 2,737,259                 |                                   |                                                   | (1,174,655)                       |                                                            | 1,562,604                                  | 383,218                    | 1,179,386                                          |
| 1993        | 2,979,255                 |                                   |                                                   | (238,130)                         |                                                            | 2,741,125                                  | 417,100                    | 2,324,025                                          |
| 1994        | 3,192,213                 |                                   |                                                   | (1,962,549)                       |                                                            | 1,229,664                                  | 446,914                    | 782,750                                            |
| 1995        | 2,721,978                 |                                   |                                                   | (647,138)                         |                                                            | 2,074,840                                  | 381,079                    | 1,693,761                                          |
| 1996        | 3,391,678                 |                                   |                                                   | (1,482,396)                       |                                                            | 1,909,282                                  | 474,838                    | 1,434,444                                          |
| 1997        | 3,634,267                 |                                   |                                                   | (1,520,219)                       |                                                            | 2,114,048                                  | 508,800                    | 1,605,248                                          |
| 1998        | 5,342,834                 |                                   |                                                   | (1,107,501)                       |                                                            | 4,235,333                                  | 748,000                    | 3,487,333                                          |
| 1999        | 8,867,742                 |                                   |                                                   | (2,696,200)                       |                                                            | 6,171,542                                  | 1,241,486                  | 4,930,056                                          |
| 2000        | 2,857,534                 |                                   |                                                   | (3,300,053)                       |                                                            | (442,519)                                  | 400,055                    | (842,574)                                          |
| 2001        | 2,623,227                 |                                   |                                                   | (444,009)                         |                                                            | 2,179,218                                  | 367,252                    | 1,811,966                                          |
| 2002        | 3,752,265                 |                                   |                                                   | (791,319)                         |                                                            | 2,960,946                                  | 525,317                    | 2,435,629                                          |
| 2003        | 3,258,583                 |                                   |                                                   | (2,389,979)                       |                                                            | 868,604                                    | 456,202                    | 412,402                                            |
| 2004        | 2,874,629                 |                                   |                                                   | (952,940)                         |                                                            | 1,921,689                                  | 402,448                    | 1,519,241                                          |
| 2005        | 3,940,876                 |                                   |                                                   | (1,409,296)                       |                                                            | 2,531,580                                  | 551,723                    | 1,979,857                                          |
| Total       | 113,906,645               | (9,478,000)                       | 6,634,600                                         | (44,825,679)                      | (2,323,609)                                                | 63,913,957                                 | 15,947,529                 | 47,966,428                                         |

<sup>a</sup>Under State Assembly Bill 1442 the General Fund paid 20% of the Suisun Marsh costs through 6/88 which amounts to \$9,478,000. This payment includes \$2,843,400, which represents 6% of the costs through 6/88 paid by the General Fund. This amount has reduced the costs billed to the SWP contractors. The remaining \$6,634,600 received from the General Fund represents our Recreation project purpose share of 14%.

<sup>b</sup>Excludes interest payments made by USBR.



## Chapter 5

### Local Assistance

**R***everse osmosis is a way to increase water supply.*



## Significant Events in 2005

**B**y the end of 2005, 69 water districts, three environmental interest groups, and more than 55 other interested groups had signed the Agricultural Water Management Memorandum of Understanding (MOU) as members of the Agricultural Water Management Council (Ag Council).

DWR received 148 urban water management plans.

Southern Illinois University completed a report under contract with DWR. The report evaluated methods of removing selenium from agricultural subsurface drainage water using absorbent materials

**I**nformation in this chapter was contributed by the Division of Planning and Local Assistance and the Office of Water Use Efficiency.

The Department of Water Resources (DWR) manages water use efficiency, the Davis-Grunsky Act, agricultural drainage, environmental impact document review, and Water Conservation Bond Law programs, and participates in several other programs that assist local agencies and benefit State Water Project (SWP) contractors.

## Davis-Grunsky Act Program

The Davis-Grunsky Act, authorized in 1960 as part of the Burns-Porter Act, provides construction loans for local domestic water projects and agricultural water conservation projects. It also provides grants for recreation and fish and wildlife enhancement. Loans and grants may be given to rehabilitate dams and reservoirs.

DWR's ongoing administration of the program provides oversight of the 32 recreation grant projects to ensure compliance with the contracts. Administration costs are recovered from the revenues provided by the repayment of Davis-Grunsky Act loans. The recreation grant contracts are being amended to reflect actual facilities constructed and the modification of DWR's fee oversight function.

## Water Use Efficiency

The Water Conservation Office was reorganized and a new Office of Water Use Efficiency (OWUE) was created in 2001. OWUE activities include providing technical assistance to local agencies; managing water use efficiency financial assistance programs; managing the California Irrigation Management Information System; reviewing, tracking, and reporting on urban and agricultural

water management plans; and managing drainage and water recycling/desalination projects.

## California Irrigation Management Information System (CIMIS)

CIMIS is a network of automated weather stations that collects weather data and transmits it to a central repository in Sacramento each day. After performing quality control and calculations, the data are made available to the public for such diverse purposes as irrigation scheduling, resource planning, research, and modeling.

DWR's CIMIS network remained at 130 stations in 2005. Approximately 70 percent of the stations on the network belong to local cooperators. The demand for CIMIS data has been increasing steadily since its establishment in 1982. For example, the number of registered data users has grown from 661 in 1989, to more than 7,000 in 2005.

Due to the growing demand for data and information, the CIMIS database and the Web application were upgraded to increase performance and enhance content in 2004. Further enhancements will take place in 2007.

More than 196,000 reports were generated from the database with more than

20,000,000 visits to the website (<http://www.cimis.water.ca.gov>), for information in 2005. Users can register online, access archived data, download data files, and peruse content about the CIMIS program and other helpful meta data and information. A separate but concurrently-operating database and a Web application were developed to keep pace with the rapidly evolving program. A Web administrative module was also created to make the website more dynamic.

Other ongoing enhancements for CIMIS include the non-ideal site weather station network study and the incorporation of the GOES model producing statewide daily evapotranspiration ( $ET_o$ ) maps.

In addition, staff is updating CIMIS brochures, evapotranspiration calculation, other methods of data acquisition and dissemination, data quality refinements, and technical assistance.

### **Water Recycling and Desalination Branch**

The Water Recycling and Desalination Branch of OWUE was established in 2001. The branch's goal is to improve water use efficiency and to promote increased use of nonconventional water sources through planning, technical, and financial assistance. As part of a balanced water portfolio, nonconventional water will help meet existing and future water supply and environmental needs, by increasing safe and beneficial use of recycled water. It will also encourage economically and environmentally acceptable use of desalinated brackish and sea waters.

In 2005, the Water Recycling and Desalination Branch activities included the following:

- awarding proposition 50 funds of \$25 million for the first desalination grant cycle to fund 24 different projects, including: three constructions, six pilots and demonstrations, seven research and development projects, and eight feasibility studies.
- developing and managing grant agreements for the 24 different projects, which were awarded through the initial 2005 cycle of the desalination grant program.
- the Housing And Community Development, at the request of DWR and DHS, initiated recommendation 3.3.1 of the recycled water task force, which states that the "Housing And Community Development Department should submit a code change to remove the requirement for the skull and crossbones symbol in Sections 601.2.2 and 601.2.3 of the California Plumbing Code." The Housing And Community Development Department submitted this on September 24, 2004, and updated it on November 15, 2004 for the 2004 California Plumbing Code, and updated it again on March 1, 2005.
- disseminated information regarding AB 334 (Goldberg, Chapter 172, Statutes of 2003), which gives communities additional flexibility to regulate water softeners as a source-control measure. For example, on July 8, 2005, conducted a joint workshop between DWR and the Santa Clara Valley Water District entitled "A Salinity Management Strategy-Water Softener Replacement Rebate Program."
- presented a water fact brochure entitled *Water Recycling* (DWR water

facts no. 23) and Water Recycling 2030 at several workshops statewide.

- served as a member on the Executive Management Team of the Southern California Water Recycling Projects Initiative sponsored by Reclamation.
- participated on the Project Advisory Committee to design an activity booklet for upper elementary students, entitled *Give Water A Second Chance... Recycle It*, which provides information on the process and the need for recycled water and its similarity to the water cycle.

## **Agricultural Water Management Plans**

By the end of 2005, 69 water districts, three environmental interest groups, and more than 55 other interested groups had signed the Agricultural Water Management Memorandum of Understanding (MOU) as members of the Agricultural Water Management Council (Ag Council). The agricultural signatories represent more than 4.75 million acres of irrigated agricultural land statewide.

In 2005, the council endorsed an additional three agricultural water management plans that had been submitted by agricultural water suppliers to the Ag Council. Subsequently, these plans have become the basis for the districts' water conservation efforts. The districts with endorsed water management plans are expected to prepare and submit a biannual progress report to the Ag Council from the date their plan was endorsed. DWR staff provides technical review and evaluation of these plans. DWR also reviewed four biannual progress reports for the Ag Council.

DWR staff provided technical assistance to water districts to prepare water management plans and helped implement efficient water management practices, as well as administrative and programmatic assistance to both the Council and water districts.

## ***Three-Way Cooperative Agreement—Ag Council***

In 2001, DWR set up a three-way cooperative agreement between itself, Reclamation, and CALFED, and has been managing the State-funded portion of the agreement. This agreement provides funding to the Ag Council for a period of three years to help implement the MOU. The management and implementation of tasks in the agreement are closely coordinated with Reclamation Mid-Pacific Region. This activity, with a \$1.2 million budget, is shared equally between DWR and Reclamation. By the end of 2005, all DWR funds were spent for relevant tasks identified in the three-way cooperative agreement. The work continued with federal share of funds and tasks.

The Ag Council is making progress on tasks identified in this cooperative agreement. The Ag Council has hired additional staff to help with technical issues as well as with database development, and the enhancement of web-based applications related to the water management planning process. It is also making significant progress in implementing all tasks identified in the agreement. The council provided technical and financial assistance to the signatories of the MOU to develop water management plans, since development of a model water management plan and refinement of net benefit analysis are important tasks of the agreement.

## **Urban Water Management Plans**

DWR received 148 urban water management plans in 2005. The 2005 Urban Water Management Plan Guidebook and DWR 2005 UWMP Review Sheets were published. In addition, a series of ten workshops on how to prepare an UWMP were conducted around the State.

### **Three-Way Cooperative Agreement—Urban Council**

DWR set up a three-way cooperative agreement between itself, Reclamation, and CALFED and has been managing the State-funded portion of the agreement. This agreement provides funding to the California Urban Water Conservation Council, for a period of three years to provide technical assistance to urban water suppliers to implement the first four years of the CALFED incentive-driven Water Use Efficiency Program. The management and implementation of tasks in the agreement are closely coordinated with Reclamation's Mid-Pacific Region. This is a \$1.5 million, three-year activity, of which \$600,000 is funded by Reclamation.

The Urban Council continues to make progress on tasks identified in this cooperative agreement, including timely achievement of tasks outlined in the CALFED Water Use Efficiency Program Budget Change Proposal. In 2005, five of the tasks in the three-way cooperative agreement between DWR, Reclamation, and CALFED were performed for DWR.

### **Draft Senate Bill 610 and Senate Bill 221 Guidebook**

Senate Bill 610 became effective on January 1, 2002. It expands the requirement for public water systems to prepare water supply assessments

for large-scale projects, requires that additional information be included in assessments, and makes related changes. The draft Senate Bill 610/Senate Bill 221 Guidebook was published to provide assistance to water suppliers, cities, and counties in integrating water and land use planning.

## **Outreach**

OWUE outreach extends to presentations, workshops, trade shows, expositions, and exhibits.

In 2005, OWUE staff performed outreach that included the following:

- organized staff meeting with University California Rice Workgroup;
- presented water and resource conservation exhibit at Genentech in Vacaville;
- met with several University of California Cooperative Extension;
- attended the Sacramento Valley Exposition Trade Show;
- participated in various California Urban Water Conservation Council committees, Steering Committee and Plenary Meetings, League of California Cities meeting, the Association of California Water Agencies Spring and Fall conferences; and
- participated in California Energy Commission workshops on water-energy efficiency; and
- conducted nine Urban Water Management Plan (UWMP) workshops around the state.

*Water Conservation News* continues to be the primary water conservation outreach newsletter. The quarterly publication

reaches more than 8,000 California subscribers.

## Agricultural Drainage Program

The Agricultural Drainage Program mission is to seek in-valley solutions to the surface and subsurface agricultural drainage water problems in the State and, in particular, the San Joaquin Valley, and improve water quality in the San Joaquin River by promoting measures to reduce salinity and discharge of harmful elements.

Even though the San Joaquin Valley Drainage Implementation Program (SJVDIP) has been idle since 2003, DWR continues to implement many of its recommendations through its Agricultural Drainage Program. DWR works in partnership with California universities, CALFED, Reclamation, resource conservation districts, watershed groups, water and drainage districts and many other local, State and federal entities. DWR works with these organizations to develop, educate, and promote the use of Integrated On-Farm and Regional Drainage Management Systems (IFDM) in the San Joaquin Valley;

- provide technical assistance and collaborate with water and drainage districts, and local entities to reduce and control surface and subsurface agricultural drainage water;
- maintain research and demonstration projects to develop drainage reuse systems, including the development of cost-effective salt tolerant crops (including energy crops), drainage treatment, disposal technologies, and salt separation and utilization;

- monitor the quality and distribution of shallow groundwater water levels in drainage-impaired areas of the San Joaquin Valley;
- promote agricultural water and energy use efficiency programs in drainage-impaired lands to reduce the volume of surface and subsurface drainage water and expand regional water supplies;
- maintain programs to help improve water quality on the San Joaquin River; and
- provide grants for control of agricultural drainage water and the reduction of its toxic elements, using Propositions 13, 50, 204, and DWR project fund monies.

The Agricultural Drainage Program was divided into two major activities: management of Proposition 204 (Drainage Subaccount) and the San Joaquin Valley Agricultural Drainage Program.

### **Proposition 204 (Drainage Management Subaccount)**

In 1996, Proposition 204, The Safe, Clean, Reliable Water Supply Act, authorized the transfer of approximately \$6.1 million from the State Water Resources Control Board (SWRCB) to the California Department of Food and Agriculture (CDFA). In 1997, CDFA, SWRCB, and DWR signed an MOU that established a process for utilizing the funds designated for agricultural drainage activities. In 1999, CDFA and DWR signed an interagency agreement to transfer the funds to DWR for developing and implementing programs consistent with Water Code Section 78645, as outlined in the MOU. The funds are distributed throughout the duration of the six-year Proposition 204 program. The goal of the program is to develop methods of using

and concentrating salts and reducing contaminants in the California's subsurface agricultural drainage water.

Each year, DWR solicits proposals from public entities seeking funding for research activities. A technical review committee reviews and screens the proposals. DWR then submits the proposal packages to an oversight committee, comprised of representatives from DWR, CDFA, and SWRCB for final approval. Ultimately, DWR is responsible for preparing and managing contracts for the approved proposals.

In 2005, the Proposition 204 program funded the following projects:

- characterization of forages growing in saline drainage water reuse systems: influence of management practices on forage productivity and nutritional value, California State University Fresno (CSUF);
- wetland drainage management technology development in support of San Joaquin River real-time water quality management, University of California, at Merced;
- concentration of mineral salts from membrane desalting of agricultural drainage in the San Joaquin Valley, University of California, at Los Angeles;
- predicting water use, crop growth, and quality of Bermuda grass under saline irrigation, University of California, at Davis; and
- the production of biofuel and selenium-enriched feed from canola irrigated with agricultural drainage water on the west side of California's San Joaquin Valley, U.S. Department of Agriculture, and CSUF, partial funding.

## **San Joaquin Valley Agricultural Drainage Program**

This program consists of several activities, including drainage monitoring and evaluation, drainage treatment, integrated on-farm drainage management, drainage reduction and reuse, environmental services activities and the San Joaquin River Water Quality Improvement Program.

### ***Drainage Monitoring and Evaluation***

Drainage monitoring and evaluation involves collecting and evaluating information on the quality, quantity, and movement of drainage water. The following activities were conducted:

- monitoring and collecting shallow groundwater levels, flows, and water quality data for drainage water from Westside San Joaquin Valley tile drain sumps;
- publishing an annual drainage report in December 2005, The San Joaquin Valley Drainage Monitoring Program 2002 Report;
- preparing shallow groundwater and irrigation methods maps of drainage-impaired areas, using drainage monitoring data in conjunction with land use and irrigation methods data;
- providing assistance for the collecting of groundwater, soil, and operational data for the integrated on-farm drainage management project, at Red Rock Ranch in western Fresno County; and
- maintaining a website that includes information on drainage programs and activities, salinity and shallow groundwater maps, Proposition 204 grants, and links related to other agricultural drainage programs: ([www.dpla.water.ca.gov/sjd/waterquality/index.html](http://www.dpla.water.ca.gov/sjd/waterquality/index.html)).

## ***Drainage Treatment***

**Development of Membrane Treatment of Agricultural Drainage Water.** DWR continues to fund research under a contract with University of California, Los Angeles, (Department of Chemical Engineering) to explore the use of membrane treatment desalting agricultural drainage water. Under this multi-year contract, UCLA is performing fundamental work to: (1) evaluate the relationships between anti-scalant dose and membrane mineral salt scale prevention; (2) evaluate the potential for enhanced crystallization of membrane concentrate by crystal seeding and pH control; and (3) reducing membrane fouling due to scale formation. A final progress report entitled "Recovery Enhancement and Brine Minimization" for tasks nine through 18 in the contract were submitted in September 2005.

**Grasslands Area Farmers: In-Valley Drainage Reuse Plan.** DWR continues to participate in a multi-agency cooperative effort with Grasslands Area farmers to comply with the objectives of the California Regional Water Quality Control Board's (CRWQCB) Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River (SJR). DWR developed an economic model to evaluate all possible options, costs for subsurface drainage water treatment, and active land management alternatives.

## ***Agricultural Subsurface***

**Drainage: Salt Recovery, Purification, and Utilization.** DWR continues to support investigations of processes for concentrating and purifying drainage salts for marketing purposes. These activities are performed on two fronts. The first, with University of California Davis, involves recovering sodium sulfate from farm

drainage water and using it in the reactive dye process of cotton. It also involves separating and purifying agricultural salts and brines to produce value-added salt products, while mitigating environmental impacts of salt accumulation. The university developed a pilot salt separation unit for field testing. The second area of investigation involves pilot scale research at Red Rock Ranch using a solar still to demonstrate various ways of using solar energy to recover potable water from drainage water.

**Selenium Removal from Agricultural Subsurface Water.** Southern Illinois University completed a report under contract with DWR. The report evaluated methods of removing selenium from agricultural subsurface drainage water using absorbent materials. One of the most prominent results indicated that nano-sized zerovalent Ni-Fe and Fe particles can rapidly reduce and immobilize selenate from the drainage water, despite the presence of sulfates. Nearly 100 percent removal was obtained in five hours under most conditions. The report is available at the DWR/DPLA San Joaquin District website.

DWR continues to participate in cooperative research with the University of California Salinity/Drainage Program (<http://www.waterresources.ucr.edu>). Activities include a multi-year study for mitigating selenium ecotoxic risk in agricultural drainage systems.

**Integrated On-Farm Drainage Management.** The Integrated Drainage Management Section, created in 2001, provides technical assistance on Integrated On-Farm Drainage Management (IFDM) systems through advisory, technical, and



oversight committees. IFDM is a drainage management system based on sequential reuse of saline drainage water to irrigate crops of progressively increasing salt tolerance. Each sequential reuse reduces the volume of drainage water and increases the salt concentration. Drainage water too saline for irrigation can be applied to a variety of discharge points. The IFDM program funds, administers, and monitors contracts with State, federal, university, and local entities to learn more about IFDM systems. Findings indicate that IFDM systems have less significant environmental impacts than other options and reduce the volume of drainage water. Staff working on activities investigate the use of accelerated evaporation systems (solar evaporators) for zero discharge systems and evaluate the feasibility of using salt-gradient solar pond systems as a way of removing salt and generating heat or electricity for agricultural use.

IFDM Program staff also:

- coordinate IFDM research activities and data collection with other agencies;
- assist growers and local agencies in planning and developing IFDM system;
- worked with the Westside Resources Conservation District and SWRCB to improve the design, management, and operation of IFDM systems;
- investigate new techniques for zero discharge, including enhanced evaporation techniques and extraction of salts from reused drainage water at a solar still facility at Red Rock Ranch;
- participate in joint investigations with Reclamation to determine the feasibility of nanofiltration as a pretreatment for desalination of subsurface drainage water, using reverse osmosis technology and the feasibility of using a

patent biotreatment process to remove selenium from agricultural subsurface drainage water;

- provide assistance to research projects for the development of crops, including research being performed at Red Rock Ranch by CSUF to assess the suitability of various salt-tolerant forages and halophytes for the sequential reuse of drainage water, forage quality, productivity, and water use; and
- cooperate with U.S. Department of Agriculture in an investigation to determine crop production using an active drainage management system that employs insitu use of shallow groundwater and subsurface drainage water.

DWR continues to work cooperatively with Reclamation to investigate the long-term interaction of irrigation, rainfall, and local and regional groundwater with the movement of salts and selenium in the soils of Red Rock Ranch. The project will use a three-dimensional numerical model for fully-integrated subsurface and surface flow and solute transport. DWR continues to monitor a series of observation wells at Red Rock Ranch and surrounding areas collect water quality samples, and measure groundwater levels to provide data for the model. Other activities include the following:

- assisting growers, water and drainage districts, and regional entities, by providing information on salt-tolerant grasses and IFDM design specifications;
- assisting SWRCB to develop policies for the management of drainage water, salt, and selenium;
- constructing a pilot solar evaporator to collect data on evaporation rates of subsurface drainage water, using

nozzles, screens, and other devices and materials. The purpose is to develop design specifications for evaporating and recovering salts from drainage water in the solar evaporator, to determine optimum weather parameters to operate it, and to study methods to minimize and control potential salt drift. The results and conclusions from the pilot model will be used to scale a solar evaporator for the 640-acre IFDM system at Red Rock Ranch and future IFDM systems in the Central Valley.

**IFDM Manual.** DWR contributed to the publication of a *Technical Advisor's Manual, a Guide for Designing IFDM systems*. Published in 2005, it serves as a companion to the landowner's manual, *A Landowner's Manual Managing Agricultural Irrigation Drainage Water: A Guide for Developing Integrated On-Farm Drainage Management Systems*. DWR held two seminars in Five Points and Bakersfield to educate growers and professionals. The seminars included field trips to farms that have implemented IFDM systems. Participants toured Red Rock Ranch in Fresno County and AndrewsAg in Kern County. AndrewsAg is unique in that the owner closed evaporation basins and converted the system to include a solar evaporator.

DWR staff continues to assist Reclamation on performing project tasks for the HydroGeoSphere project at Red Rock Ranch. To facilitate development of the conceptual model, DWR staff collected topographic survey data of Red Rock Ranch and surrounding area to determine elevation points and to locate fixed works, such as sumps, pumps, and wells. The model results from this case study will

be useful for the formulation of optimal design and management guidelines for IFDM systems.

Researchers at California State University Fresno (CSU, Fresno) and Center for Irrigation Technology studied the particle emissions produced by the operation of a pilot module solar evaporator at Red Rock Ranch. Information is needed to determine if the salt emissions from the solar evaporator are significant or of a threshold subject to air quality regulations. The principal air quality concerns arising from particle emissions produced by the operation of the solar evaporator are those related to particulate matter (PM) standards, PM10 or PM2.5. Field sampling involved collecting data during nine sampling periods of various weather and water quality conditions to determine the salt deposition patterns. From this data, researchers measured salt deposition and used characteristic equations to model the deposition pattern. The study concluded that the particles small enough to be regulated are a very small fraction of the total emissions. Among the findings, to prevent significant salt deposition from occurring on salt sensitive crops, 200 meters appears to be the maximum amount of buffer zone needed downwind of the solar evaporator (or 100 meters if crop is salt tolerant). Information from this study offers a framework to solar evaporator designers and operators for adhering to air quality and emission standards.

DWR staff used GIS technology to map more than 100 locations of salt-tolerant tree plantations and plant materials and link to information on growth, salinity tolerances, and survival. These plantings began in the mid 1980s,

with the origination of the agriforestry concept, while new plantings continue as components of the IFDM system. Salt-tolerant trees and plant materials are used to lower shallow groundwater, intercept regional groundwater, and in agricultural subsurface drainage reuse. The GIS database will be used to disseminate geographic locations of these plantings and will serve as the central information system for anyone seeking site-specific information on performance of salt-tolerant plantings in the San Joaquin Valley.

DWR is continuing research on *Prosopis alba* in cooperation the Forestry Research Station, at Catholic University of Santiago del Estero (CUSE) in Argentina. *Prosopis alba* is a highly salt-tolerant tree species and holds promise of ameliorating subsurface drainage problems in the soils of the western San Joaquin Valley. There is good potential for investment of the agriforestry component in an IFDM system. The lumber is coveted by the furniture industry and has a value of \$1,000 ton-1 of sawn lumber. Research and development is needed to perfect the process for the reliability of massive production of elite *Prosopis alba* for large-scale reforestation. The CUSE provided approximately 2,000 scarified *Prosopis alba* seeds to initiate plantation trials in the San Joaquin Valley. After inspection and quarantine in a USDA facility, the seeds were taken to a plant nursery to produce plants needed for trials at five locations within drainage-impaired lands.

#### **Feasibility Analysis of Solar Evaporation and Recovery of Dissolved Salts from Agricultural Drainage Water in the San Joaquin Valley:**

- 1) The evaluation of the data from

the pilot test at Red Rock Ranch demonstrates that accumulated salt can be leached from soil and that future buildup of salt in the soil can be prevented.

- 2) Proposed control of the brine chemistry during evaporation includes remedial removal of scale, equipment replacement, or to prevent scale deposition. Separation of boric acid, magnesium oxide, sodium chloride, and potassium nitrate may be useful in dealing with scaling and provide for the potential of salable quality products.
- 3) The brine recovered from agricultural drainage water is well-suited for use in a salt gradient solar pond for electric power generation, refrigeration, or any other use for low-grade heat.
- 4) Onsite storage of mixed agricultural salts will be necessary until all the detailed design data is developed for a large-scale plant design. Researches and engineers initiated the process of developing the fundamental solubility data for specific salt mixtures present in drainage waters in the San Joaquin Valley.

DWR staff continues to collect operational data from IFDM projects at Red Rock Ranch and AndrewsAg for analysis of performance. DWR staff provided technical information and assistance on an agriforestry planting program in Kern County on farms with salinity and shallow groundwater problems.

#### **Drainage Reduction and Reuse Program.**

DWR's Drainage Reduction and Reuse Program, managed by Office of Water Use Efficiency (OWUE), offers technical assistance, information, and other resources to growers and irrigators for

applying irrigation water efficiently to reduce both excessive deep percolation and drainage water from the immediate on-farm source, while maintaining salt balance in the root zone.

The program objective is being achieved through on-farm demonstration projects, studies, research, training, and workshops on scheduling irrigation, management, advances in irrigation technologies, evaluating irrigation systems, reusing drainage water, and managing salinity.

Several on-farm demonstrations and other studies for salinity and irrigation management are ongoing. They help improve and advance irrigation management, fine-tune the performance of irrigation hardware, and increase grower and irrigator knowledge.

Staff is presently involved in managing in-progress contracts and preparing technical reports on the on-farm demonstrations projects and studies. Staff is also preparing semi-technical summary reports of findings and results of completed projects.

## Management of Contracts

In-progress contracts for research and demonstration projects and contracts for workshops are designed to disseminate state-of-the-art irrigation technologies and management practices to reduce and manage drainage water. The following contracts were developed from a Request for Proposals process, which was targeted for State water contract areas. The contracts include the following:

- *Integrated Management of Irrigation and Shallow Groundwater*—field

demonstration at Westlake Farms of irrigation management techniques to optimize crop use of shallow groundwater.

- *Using Forage Grasses and Livestock to Manage Subsurface Drainage Water in the San Joaquin Valley*—field demonstration at Westlake Farms to evaluate the feasibility of growing Bermuda, Elephant, and other salt-tolerant grasses with subsurface drainage water as livestock forage.
- *Center for Irrigation Technology Irrigation/ Drainage Management Workshops*—training and educational workshops on recent advances in irrigation and drainage management at CSU, Fresno.
- *Irrigation Management Education and Training Workshop Through the Use of Demonstration Farms*—workshops that provide practical methods of irrigation management at on-farm demonstration sites, effectiveness of various practices will be determined through the use of a mobile irrigation lab.
- *Educational and Training Workshops for all Prevalent Irrigation Systems in California*—workshops designed for staff from irrigation/water districts, farming communities, consultants, and the public.
- *Irrigation System Evaluation short courses conducted by Cal Poly*. These two workshops, each two-half day, are designed to provide hands-on training and education for irrigators, and those that are involved in irrigation decision process.

## Environmental Services

The Environmental Services Section investigates and reports on short- and long-term use and operation of evaporation ponds, IFDM, and other systems used for disposal and/or management of drainage water. During 2005, the section continued to assist CVRWQCB in assessing the biological implications of proposed and implemented modifications to evaporation basins. Environmental investigations include the following:

- Red Rock Ranch research projects that involve required biological monitoring activities in accordance with Waste Discharge Requirements;
- IFDM wildlife monitoring and development of BMP. DWR continues to monitor avian wildlife at the existing Red Rock Ranch IFDM terminal reuse areas, which include a solar evaporator, halophyte plots, and salt tolerant grasses. DWR biological staff, in cooperation with the United States Fish and Wildlife Service (USFWS) completed a study to determine adequate long-term wildlife impact and avoidance assessment and BMP for current and future IFDM projects. This information is crucial because IFDM systems that are not managed can result in selenium-induced avian teratogenesis (developmental defects). IFDM appears to be a viable drainage management tool, when managed in a way that avoids or minimizes wildlife impacts posed by other drainage water management techniques, such as evaporation ponds assisting in evaporation pond studies. DWR continues to provide assistance with invertebrate collection and species identification at San Joaquin Valley evaporation ponds. This information is being used by several UC studies that are evaluating food chain transfer of selenium and insitu volatilization.
- Assisting landowners in locating information for preparing California Environmental Quality Act (CEQA) documentation necessary for obtaining permits and authorization for implementing, monitoring, and operating drainage reduction, treatment, and disposal projects;
- Mapping agriforestry and herbaceous plots in drainage-impacted areas, using Global Positioning System technology. Information was then imported into a Geographic Information System format linked to a database created to track key information associated with development of the vegetation plots;
- Responding to information requests from landowners wanting a better understanding of the CEQA and National Environmental Policy Act (NEPA) public review process, so they would be able to more meaningfully comment on upcoming State and federal drainage related projects; and
- Reviewing quarterly and annual environmental monitoring reports related to evaporation pond operation and investigation.

### San Joaquin River Water Quality Improvement Program

DWR Agricultural Drainage Program, in collaboration with other agencies, continues to make significant efforts to improve water quality in the San Joaquin River to benefit the State and DWR water contractors. These efforts are aimed to control salinity and selenium discharges upstream of Vernalis. They include promoting on-farm and regional

water management activities to reduce subsurface drainage, real-time water quality management to maximize the assimilative capacity of the San Joaquin River, and efforts to time wetlands discharges when there is assimilative capacity in the San Joaquin River.

### **On-Farm and Regional Drainage Management Activities**

Drainage management activities involving source control and drainage reuse have proven to be effective in reducing salt loads in the San Joaquin River.

This is demonstrated by the efforts of the Grasslands Area farmers on the Grasslands Bypass Project (GBP). Since the implementation of the GBP, drainage discharges have decreased from 58,000 af to about 30,000 af, and salt loads have been reduced from 210,000 tons to 117,000 tons. The reductions are possible because DWR funded through Proposition 13, an important component of the GBP, the San Joaquin River Improvement Project. It consists of about 4,000 acres of lands dedicated for reuse of subsurface drainage water, generated by Grasslands Area Farmers to grow salt-tolerant crops. DWR continues to provide technical assistance to continue improving and developing this important part of the GBP project.

DWR continues to collaborate with many entities in efforts proposed to control, reduce, or eliminate drainage water discharges into the San Joaquin River, such as the West Side Regional Plan, Reclamation's San Luis Drainage Feature Reevaluation to provide drainage service to the San Luis Unit of the Central Valley Project and by promoting Integrated On-

Farm Drainage Management Program that DWR and collaborating agencies maintain.

DWR collaborated with the San Joaquin River Water Quality Management Group to develop a paper with ideas, information, and concepts to assist policy makers in deciding what actions will be implemented, strategies to meet water quality objectives in the San Joaquin River, specifically salinity at Vernalis and dissolved oxygen in the Stockton Deep Water Channel.

### **Real-Time Water Quality Monitoring Program**

The Real-time Water Quality Monitoring Program (RTWQMP) provides information on existing water quality conditions and forecasts flow and water quality conditions to San Joaquin River water managers and stakeholders. The information provided is important for improving the management and coordination of reservoir releases, agricultural and wetland drainage flows, and eastside tributary releases to achieve water quality objectives at the San Joaquin River compliance points. In the early stages, the RTWQMP was funded by Reclamation and then by CALFED. Currently, DWR has assumed responsibility for funding most of the RTWQMP for the San Joaquin River.

One important activity of this program is forecasting flow and salinity conditions on the San Joaquin River, so decision makers can take advantage of assimilative capacity of the river when available. For this purpose, DWR collects data from the network of stations and inputs it into the San Joaquin River Input-Output Day (SJRIODAY) model. The model forecasts salinity and flow conditions on the River

near Vernalis, and other upstream stations on a biweekly basis. DWR publishes the information on its website on a weekly basis. Figure 5-1 shows an example of the information displayed.

### Efforts to Improve Wetlands Discharges

As per Central Valley Regional Water Quality Control Board (CVRWQCB) data, wetlands discharges contributed about nine percent of the total salt load in the San Joaquin River at Vernalis. The contribution is likely to be higher today, as additional water supply and land are acquired for wetlands wildlife refuges, through Central Valley Project Improvement Act (CVPIA), Environmental

Water Account (EWA), and other programs. The timing of wetland releases with assimilative capacity of the San Joaquin River could result in significant water quality improvements. However, little has been done in this regard, due to concerns over disrupting existing, proven wetland management practices.

Research is undergoing to determine if improved wetlands management practices can be achieved for the benefit of both wildlife and San Joaquin River water quality. Current research has focused on real-time water quality monitoring and adaptive management. Research goals are to coordinate the timing of wetland discharges, when assimilative capacity is available. In addition to funds provided

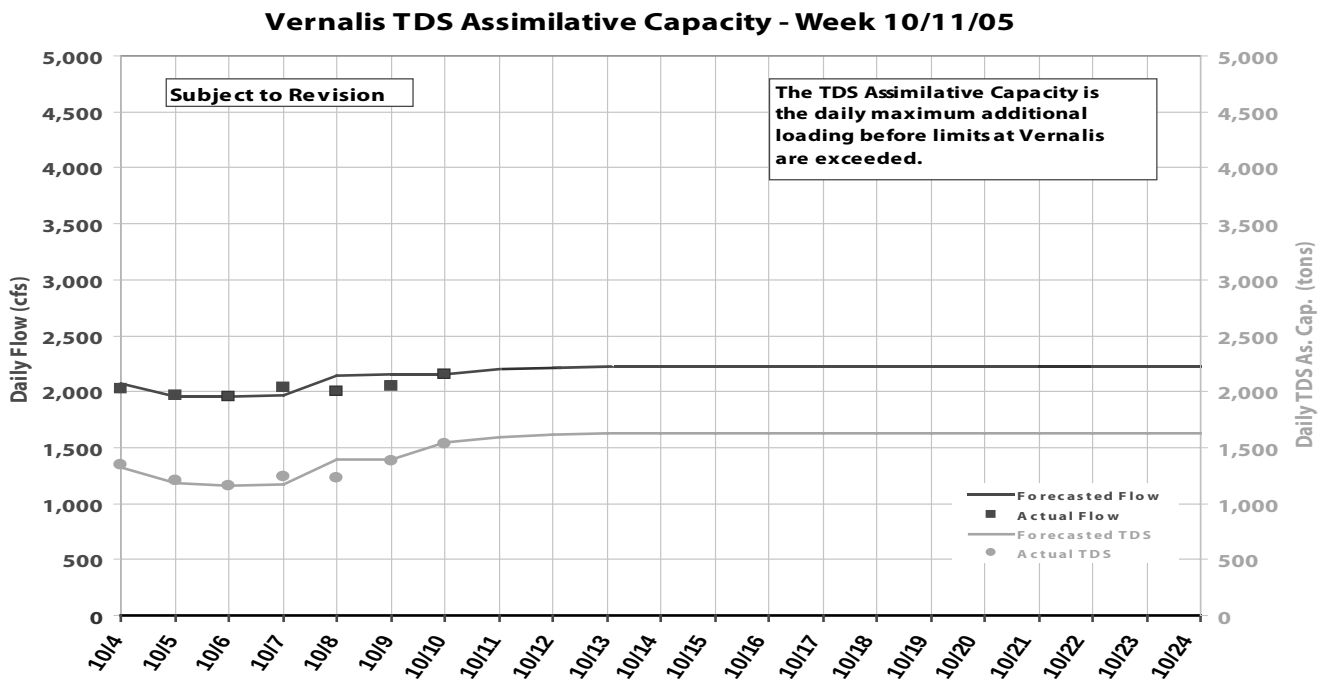


**Figure 5-1. San Joaquin River Input-Output Day Modeling Forecasts Example**

by CALFED for the study of the *Effect of Delayed Wetland Drawdown on Moist Soil Plants*, staff from DWR is collaborating with the Department of Fish and Game (DFG) and private wetlands, in a study to assess other aspects of delayed wetland drawdown. The studies on delayed wetland drawdown will be complemented by a study funded by DWR, under Proposition 204 (drainage subaccount). Real-time Water Quality Monitoring Program staff manages the contract.

The ADP prepared information for DWR to submit, as part of its testimony for the hearing on the cease and desist order issued by the SWRCB in 2005 against DWR. The referred testimony describes Decision 1641 actions that DWR has been implementing to improve salinity conditions in the San Joaquin River upstream Vernalis.

## Environmental Impact Documents Review

The Environmental Review Section in the Division of Planning and Local Assistance screens State Clearinghouse documents and circulates SWP-related materials for review by DWR's four districts, as well as DPLA, Division of Operations and Maintenance, and the Division of Engineering. In addition, other divisions and offices are notified of activities and are asked to comment when their expertise is required.

Some environmental impact documents handled by the State Clearinghouse concern proposed activities that would affect the SWP. State Clearinghouse documents are regularly reviewed to identify any public safety or liability issues arising from the proposed activities.

From January through December, about 4,714 documents were screened by the Environmental Review Section; 1,056 were referred for detailed review. Of these referrals, 794 were made when the projects were at the Notice of Preparation or Early Consultation stage and 262 assignments were for negative declarations, environmental impact reports, and NEPA environmental assessments. O&M received 136 formal referrals and two for information. The State Water Project Analysis Office (SWPAO) received 11 formal referrals and 20 for information. In addition to the information referrals made to O&M and SWPAO, 749 other information referrals were made to other DWR staff.

Comments submitted to the lead agencies addressed a number of issues, including runoff from proposed developments, safety and water supply, encroachment on physical facilities, and water quality. During 2005, several requests for additional data were made to lead agencies when the environmental document did not contain enough information. Additional departmental actions, involving such items as encroachment permit submittals and informal comments took place, but are not tracked by the Environmental Review Section. During 2005, 12 documents involving tribal gaming issues were assigned to the districts for review. These projects are of special concern to the State and require a specific review process. While none of these projects affected the SWP in 2005, they have a potential for causing future concerns.

During 2005, the Environmental Review Section tracked documents related to development along the California



Aqueduct, levee encroachment, water transfers and other water supply issues, wastewater treatment, quarry development, and electrical transmission lines near SWP facilities.

While the additional emphasis on preliminary screening started in 2004 was continued in 2005, several factors contributed to a higher number of referrals in 2005. These factors included an increase in overall documents circulated through the State Clearinghouse and a continued increase in development near State Water Project facilities, including the East, West and Coastal Branches of the California Aqueduct.

## Water Conservation Bond Laws

To assist local agencies in obtaining financing for their water management programs, California voters approved six bond laws between 1984 and 2002, authorizing DWR to provide low-interest loans and grants to fund project feasibility studies or construction activities.

- The Clean Water Bond Law of 1984 (Proposition 25) authorized \$10.5 million for water conservation projects.
- The Water Conservation and Water Quality Bond Law of 1986 (Proposition 44) authorized \$75 million for water conservation and groundwater recharge projects.
- The Water Conservation Bond Law of 1988 (Proposition 82) authorized \$60 million for water conservation, groundwater recharge, and new local water supply improvements.
- The Safe, Clean, Reliable Water Supply Act of 1996 (Proposition 204)

authorized \$55 million for water conservation, groundwater recharge, and local water supply projects.

- The Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act of 2000 (Proposition 13) authorized \$535 million for agricultural and urban water conservation, groundwater recharge, infrastructure rehabilitation, groundwater storage, and interim reliable water supply projects and studies.
- The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50, Chapter 8) authorized \$500 million for the Integrated Regional Water Management Grant Program to be implemented jointly by DWR and SWRCB.

Under these programs, grants are available and construction loans are also available with repayment of up to 20 years, at reduced interest rates for most programs.

## Propositions 25, 44, and 204

Funding is fully obligated.

## Proposition 82

Water supply loan funding is still available.

## Proposition 13

Agricultural water conservation loan funding is still available.

All loan and grant funds for the Groundwater Recharge, Infrastructure Rehabilitation, Urban Water Conservation, Groundwater Storage and Interim Reliable Water Supply programs has been obligated.

## **Proposition 50**

DWR, in collaboration with the SWRCB, conducted the first funding cycle for the Integrated Regional Water Management program. Proposal Solicitation Packages were prepared and issued for Planning Grants and the Implementation Grants. Program staff conducted regional workshops to assist potential applicants in completion of the applications. Planning grant applications were reviewed and evaluated and preliminary funding recommendations were developed and released for public comment. Step 1 Implementation grant proposals were reviewed. Also funded from Proposition 50 funds, the Local Groundwater Assistance program reviewed and evaluated applications, held a Technical Advisory Panel and public meeting, developed recommendations, and awarded \$6.4 million in grants to 30 local public agencies for groundwater data collection, modeling, monitoring and management studies; monitoring programs and installation of equipment; basin management; and development of information systems.

Among other approval criteria for most of the Water Conservation Bond Law programs, applicants must demonstrate that project benefits equal or exceed project costs. Typical projects fall under the following categories:

### ***Agricultural Water Conservation***

- improvements to, or replacement of, distribution and storage systems;
- lining and piping ditches;
- lining or covering reservoirs; and
- capital outlay features of agricultural water conservation programs

### ***Local Water Supply***

- new conveyance and/or storage facilities groundwater extraction facilities, well-field development
- groundwater extraction facilities, well-field development
- desalination (ocean or brackish groundwater recovery)

### ***Integrated Regional Water Management***

- projects to protect communities from drought, protect and improve water quality, and improve water security by reducing dependence on imported water. Table 5-1 summarizes the number of projects and funds committed for each of the six bond laws through December 2005.

**Table 5-1. Water Conservation Bond Laws - Projects and Funding**

| <b>Bond Law</b>                                                                         | <b>Type of Project</b>               | <b>Number of Projects <sup>a</sup></b> | <b>Funding <sup>a</sup><br/>(millions of dollars)</b> |
|-----------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------|-------------------------------------------------------|
| Clean Water Bond Law of 1984                                                            | Water Conservation                   | 7                                      | 9.74                                                  |
| Water Conservation and Water Quality Bond Law of 1986                                   | Water Conservation                   | 24                                     | 41.60                                                 |
|                                                                                         | Groundwater Recharge                 | 10                                     | 28.04                                                 |
|                                                                                         | <i>Subtotal</i>                      | 34                                     | 69.64                                                 |
| Water Conservation Bond Law of 1988                                                     | Water Conservation                   | 7                                      | 17.44                                                 |
|                                                                                         | Groundwater Recharge                 | 8                                      | 24.30                                                 |
|                                                                                         | Local Water Supply                   | 4                                      | 9.00                                                  |
|                                                                                         | <i>Subtotal</i>                      | 19                                     | 50.74                                                 |
| Safe, Clean, Reliable Water Supply Act of 1996                                          | Water Conservation                   | 2                                      | 7.00                                                  |
|                                                                                         | Groundwater Recharge                 | 5                                      | 22.10                                                 |
|                                                                                         | Local Water Supply                   | 23                                     | 23.48                                                 |
|                                                                                         | <i>Subtotal</i>                      | 30                                     | 52.58                                                 |
| Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act of 2000 | Agricultural Water Conservation      | 13                                     | 1.18                                                  |
|                                                                                         | Urban Water Conservation             | 54                                     | 28.00                                                 |
|                                                                                         | Groundwater Recharge                 | 24                                     | 28.30                                                 |
|                                                                                         | Infrastructure Rehabilitation        | 42                                     | 56.40                                                 |
|                                                                                         | Groundwater Storage                  | 41                                     | 180.00                                                |
|                                                                                         | Interim Reliable Water Supply        | 13                                     | 169.31                                                |
|                                                                                         | <i>Subtotal</i>                      | 187                                    | 463.19                                                |
| Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002          | Local Groundwater Assistance         | 84                                     | 18.40                                                 |
|                                                                                         | Integrated Regional Water Management | 1                                      | 6.89                                                  |
|                                                                                         | <i>Subtotal</i>                      | 85                                     | 25.29                                                 |
|                                                                                         |                                      |                                        |                                                       |
| All Water Conservation                                                                  |                                      | 107                                    | 104.96                                                |
| All Groundwater Recharge                                                                |                                      | 47                                     | 102.74                                                |
| All Local Water Supply                                                                  |                                      | 27                                     | 32.48                                                 |
| All Infrastructure Rehabilitation                                                       |                                      | 42                                     | 56.40                                                 |
| All Groundwater Storage                                                                 |                                      | 41                                     | 180.00                                                |
| All Interim Reliable Water Supply                                                       |                                      | 13                                     | 169.31                                                |
| All Local Groundwater Assistance                                                        |                                      | 84                                     | 18.40                                                 |
| All Integrated Regional Water Management                                                |                                      | 1                                      | 6.89                                                  |
| <b>Total of All Projects</b>                                                            |                                      | <b>362</b>                             | <b>671.18</b>                                         |

<sup>a</sup> Construction and feasibility study loan and grant commitments as of December 31, 2005



## **Chapter 6**

# **Legislation and Litigation**

**T***he California State Capitol, located in Sacramento, California.*

## Significant Events in 2005

**A**B 1200 requires DWR to prepare a report evaluating the impacts on Sacramento-San Joaquin Delta water supplies of various possible future events, including levee subsidence, earthquakes, floods, and climate change no later than January 1, 2008.

On April 29, 2005, 14 of the 29 State Water Contractors brought suit against DWR. These contractors claimed the method used by DWR to allocate costs and revenue of its Hyatt and Thermalito Power Plants (Hyatt-Thermalito) at Lake Oroville violated the terms of long-term water supply contracts. (Alameda County Flood Control & Water Conservation District, Zone 7 et al. v. State of California Department of Water Resources (Sacramento County Superior Court, Case No. 05ASO1775).) In December 2005, entities representing 13 other contractors intervened in the lawsuit in opposition to the claims of the plaintiffs and in support of DWR's method of allocating costs and revenue. If the water contractors who filed the lawsuit are ultimately successful, this could result in contractors requiring the most pumping for delivery of their State Water Project water to pay more to DWR, while those contractors requiring less pumping would pay less.

*Information for this chapter was provided by the Assistant Director, Legislative Affairs Office, and the Office of the Chief Counsel.*

The Department of Water Resources (DWR) monitors State and federal legislation that affects the management of the State Water Project (SWP). Legislative bill tracking involves reviewing legislation at its introduction, evaluating amendments in State Assembly and Senate committee hearings, and monitoring its enactment into law. The DWR Assistant Director for Legislation monitors proposed legislation. The Office of the Chief Counsel tracks State and federal litigation that impacts management of the SWP. The DWR Chief Counsel also manages legal cases that involve SWP operations.

## Legislation

### State Legislation

#### ***AB 1200 (Laird) Sacramento-San Joaquin Delta (Chapter 573, Statutes of 2005).***

AB 1200 requires DWR to prepare a report evaluating the impacts on Sacramento-San Joaquin Delta water supplies of various possible future events, including levee subsidence, earthquakes, floods, and climate change no later than January 1, 2008. The report also requires DWR, in cooperation with the Department of Fish and Game (DFG), to comparatively rate the options available to prevent disruption of Delta water supplies, improve Delta drinking water quality, reduce the salts in Delta water, maintain Delta water quality, preserve Delta lands, protect area of origin water rights, protect infrastructure located in the Delta, and restore salmon and other fisheries in the Delta.

#### ***AB 1328 (Wolk) Wild and Scenic Rivers: Cache Creek (Chapter 576, Statutes of 2005).***

AB 1328 includes various sections of Cache Creek, which is located in Lake and Yolo counties, within the California Wild and Scenic Rivers system. This bill protects existing and future water rights for various public water agencies within the Cache

Creek watershed; provides that the wild and scenic designation would not hinder efforts to remove invasive plant species or toxic substances from the river; and prohibits the State from petitioning for a federal wild and scenic designation of the river.

#### ***SB 264 (Machado) Delta Flood Protection Fund (Chapter 583, Statutes of 2005).***

SB 264 extends the Delta Flood Protection Fund until July 1, 2008, to help implement the Delta Levee Maintenance Subventions Program.

#### ***SB 543 (Margett) State Water Project (Chapter 263, Statutes of 2005).***

SB 543 requires individuals and entities to obtain a permit before construction, improvement, excavation, work, or other use is conducted within SWP right of way. This bill requires DWR to issue a general encroachment permit for routine operation and maintenance activities to public agencies that have a water delivery contract with DWR. The general encroachment permit would be issued for a period not to exceed 10 years. This bill provides that any person or entity responsible for an unauthorized encroachment would be guilty of a misdemeanor and liable for a \$1,000 per day penalty.

## **Federal Legislation**

The Energy Policy Act of 2005 was signed into law on August 8, 2005, by the president. One major element of the act includes the development of energy corridors. The U.S. Secretary of Energy was ordered to conduct a study of electric transmission congestion. This study must be completed within a year and be updated every three years after the original study's implementation.

The act designates the construction of National Interest Electric Transmission Corridors to meet the criteria of: (1) economic vitality; (2) economic growth; (3) energy independence; (4) interest of national energy policy; and (5) enhanced national defense and homeland security.

Another major element of the act was the creation of an Electric Reliability Organization by the Federal Energy Regulatory Commission (FERC). In addition, FERC is directed by the act to conduct investigations on transmission rate reform and demand response.

The act further requires FERC to establish, within one year, an incentive-based rate treatment for transmission. The purpose of this rate treatment is for consumers to receive the reduction of the cost of delivered power and the benefits of reliable transmission. These savings are due to the reduction of transmission congestion. The changes are anticipated to provide additional economic incentives for the construction of transmission. Higher transmission rates are anticipated to be partially offset by lower energy rates, which will be made available to the typical customer.

FERC is required by the act to prepare an annual report, by region, to assess electricity demand response resources. This report will include resources available from all consumer classes. FERC will determine the potential for demand response, as a resource for planning purposes, and to ensure that demand resources are provided equitable treatment.

## **Litigation**

As of December 31, 2005, DWR was involved in, or closely monitored, a number of court cases and other actions related to the management of the SWP.

### **Sacramento-San Joaquin Delta**

#### ***Delta Smelt***

A coalition of environmental groups challenged the Biological Opinion issued by the U.S. Fish and Wildlife Service (USFWS). This opinion finds that SWP and Central Valley Project (CVP) operations will not jeopardize the continued existence of the delta smelt. (*Natural Resources Defense Council, et al. v. Gale A. Norton, et al.* (U.S. District Court for the Eastern District of California, 2005, Case No. 05 CV 01207 OWW (LJO)).) The plaintiffs claim the opinion fails to adequately consider or address the effects of the U.S. Bureau of Reclamation's (Reclamation's) delivery of water on delta smelt. This water delivery will be provided in soon-to-be renewed long-term water service contracts. The plaintiffs seek to have the U.S. Department of the Interior and USFWS withdraw the opinion and not take any action in reliance upon it. DWR filed a motion to intervene to protect its interests in the biological opinion, relevant to the operations of the SWP. The court granted this motion on December 12, 2005.

### **State Water Resources Control Board Hearing**

In February 2005, DWR and Reclamation petitioned the State Water Resources Control Board (SWRCB). This petition called for a temporary change and delay of the effective date to implement the southern Delta agricultural objective in Decision 1641 (D-1641). This objective was scheduled to begin on April 1, 2005. A second petition was submitted to request a change of the implementation date to April 1, 2008. (This date matches the date when the South Delta permanent gates are scheduled for operation.) SWRCB denied the first petition. No action was taken on the second petition.

On May 3, 2005, SWRCB notified DWR and Reclamation of its intention to issue a cease and desist order. This order regarded a threatened violation of the southern Delta agricultural water quality objective of 0.7 electrical conductivity. This water quality objective was scheduled to be in effect annually, from April 1 through August 31, beginning in 2005. SWRCB D-1641 conditioned the operation of the SWP and CVP with implementation of this agricultural objective. DWR and Reclamation requested a hearing on the cease and desist order. In October and November 2005, DWR and Reclamation presented evidence and argued that the cease and desist order should not be issued.

On December 30, 2005, SWRCB issued a proposed draft cease and desist order. The draft order requires DWR and Reclamation to construct permanent gates in the southern Delta—or take alternative measures for achieving water quality objectives—by 2009. In addition, the draft order requires DWR and Reclamation

to report to SWRCB if they violate or threaten to violate the water quality requirements and to report the reasons for the violation. SWRCB would then determine if enforcement actions are necessary. SWRCB set a hearing date to consider adoption of this proposed order in January 2006.

### **Decision 1641**

The SWRCB implemented D-1641, which created certain long-term water quality objectives. These objectives were published in the May 1995 Water Quality Control Plan (1995 Plan) for the Sacramento-San Joaquin Bay-Delta Estuary. Eleven different lawsuits were filed and coordinated in this action, which challenged D-1641 on three grounds: (1) whether D-1641 complied with the California Environmental Quality Act (CEQA); (2) whether the changes in D-1641 injured certain Delta water users; and (3) whether D-1641 was consistent with area of origin laws. (Coordinated Special Proceedings, State Water Resources Control Board Cases, Court of Appeals, Third District, Case No. C044714 (Sacramento County Superior Court; Case No. JC 4118).) The Sacramento County Superior Court upheld D-1641. The Superior Court found that D-1641 improperly limited the place of use for Westlands Water District, and it improperly implemented the San Joaquin River flow objectives under the San Joaquin River Agreement. This matter is on appeal.

### **Delta Wetlands**

A private initiative to develop two Delta islands into water storage facilities was challenged. (*Central Delta Water Agency, et al., v. State Water Resources Control Board, et al.* (2004) 124 Cal. App.4th 245.) This proposal stated that once the project was built, purchasers of the stored water



would be identified, and likely purchasers would be users within CVP or SWP service areas. The appellate court found that the SWRCB issued an invalid Delta wetlands water right permit. The court held that the State Constitution and Water Code require SWRCB to determine the actual intended beneficial use of the impounded water before issuing a permit. The court found it insufficient for SWRCB to issue a general statement of potential beneficial use with limiting conditions. On March 16, 2005, the California Supreme Court denied review of this case, and the decision of the Third District Court of Appeals is now law.

### **CALFED Litigation**

The CALFED Record of Decision (ROD) issued on August 28, 2000, was challenged by environmental groups and agricultural interests in both State and federal courts. The ROD established program measures to help resolve conflicts over the use of water in the Delta. Initially, three complaints were filed in State courts: *Laub v. Davis, et al.* (California Farm Bureau Federation (Farm Bureau) and three individuals); *Regional Council of Rural Counties v. State, et al.* (RCRC and South and Central Delta); and *Municipal Water District of Orange County v. Resources Agency*. Subsequently, these cases were coordinated in the Sacramento County Superior Court. The parties to the third suit settled, based on an agreement that emphasizes the importance of the CALFED Science Program. This agreement also provides notice to the water district about the CALFED stakeholders' opportunity to participate in offering information about these issues.

The remaining parties claimed the CALFED programmatic Environmental Impact Statement/Environmental Impact

Report (EIS/EIR) violates CEQA, National Environmental Policy Act (NEPA), and the federal Administrative Procedure Act. The Superior Court found in favor of the plaintiffs. The State agencies appealed, and oral argument was held on August 30, 2005. The two cases were consolidated on appeal, and the Appellate Court reversed the lower court (*In Re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, Court of Appeals, Third District, Consolidated Case Nos. C044267 and C044577).

The court rejected the vast majority of arguments by the Farm Bureau, Regional Council of Rural Counties, and the South and Central Delta water agencies. However, the court reversed the trial court's judgment in favor of the State CALFED agencies. The court found programmatic EIR/EIS was required to identify the sources of water for the CALFED program. Specifically, programmatic EIR/EIS should have considered whether reducing current exports would restrict projected growth and the subsequent need for that water. The court found that programmatic EIR/EIS should have provided more information on the entire CALFED program. The court emphasized that programmatic EIR/EIS should have provided more information on the Environmental Water Account (EWA) component of the CALFED program.

The California Supreme Court filed a Petition for Review on November 16, 2005. The issue of whether federal agencies violated NEPA is pending in federal district court.

### **Environmental Water Account**

On April 16, 2004, the Farm Bureau challenged the adoption of a final EIS/EIR. The Farm Bureau filed a CEQA claim against DWR (*California Farm Bureau Federation v. Mike Chrisman, et al.* (Sacramento County Superior Court, Case No. 04CS00490)). The EIS/EIR covered the operation of the EWA through 2007—the end of the first stage of implementation of the CALFED Program. The Farm Bureau contends that the EIS/EIR does not adequately address “agricultural resources” when analyzing impacts, alternatives, mitigation, and other issues regarding EWA operations. The parties have reached a settlement in this matter and have filed a request for dismissal with prejudice.

### **Term 91**

Two lawsuits were filed in 2004 that challenged SWRCB Decision 2001-22. This decision approved an application by El Dorado Irrigation District to divert water for urban purposes. (*El Dorado Irrigation District v. State Water Resources Control Board*); California Court of Appeal, Third District, Case No. C046211. See also (*El Dorado Irrigation District v. State Water Resources Control Board*); Sacramento County Superior Court, Case No. 01CS01319 and consolidated cases, filed June 18, 2002. El Dorado Irrigation District and El Dorado County Water Agency challenged the imposition of Term 91, which protects SWP stored water, as part of the decision. Another lawsuit was filed by an environmental group, the League to Save Sierra Lakes, which alleged CEQA violations. The court issued its final decision in December 2003, finding that Term 91 was improperly applied to the El Dorado Irrigation District. SWRCB appealed the decision, and the cases are pending on appeal.

### **Hydropower**

#### **Hyatt-Thermalito**

On April 29, 2005, 14 of the 29 State Water Contractors brought suit against DWR. These contractors claimed the method used by DWR to allocate costs and revenue of its Hyatt and Thermalito Power Plants (Hyatt-Thermalito) at Lake Oroville violated the terms of long-term water supply contracts. (Alameda County Flood Control & Water Conservation District, Zone 7 et al. v. State of California Department of Water Resources (Sacramento County Superior Court, Case No. 05ASO1775).) In December 2005, entities representing 13 other contractors intervened in the lawsuit in opposition to the claims of the plaintiffs and in support of DWR’s method of allocating costs and revenue. If the water contractors who filed the lawsuit are ultimately successful, this could result in contractors requiring the most pumping for delivery of their State Water Project water to pay more to DWR, while those contractors requiring less pumping would pay less.

#### **Refunds on Power Sales**

In 2000, FERC initiated an investigation in response to a complaint filed by San Diego Gas & Electric (SDG&E). This complaint claimed that the California Independent System Operator (CAISO) and California Power Exchange electric energy markets were producing unjust and unreasonable prices. As a result, FERC ordered public entities to provide refunds for the sales of ancillary services to the CAISO markets in 2000 and 2001. This order was challenged by large numbers of participants, including DWR and State Water Contractors. In September 2005, the 9th Circuit Court of Appeals ruled that FERC lacked jurisdiction under the Federal Power Act to order governmental agencies, such as DWR,

to provide refunds. (*Bonneville Power Administration, et al. v. Federal Energy Regulatory Commission et al.*, (9th Cir. 2005) 422 F.3d 908.) Any party wishing to challenge this decision must request an “en banc” hearing before the full 9th Circuit Court by January 2007. DWR should have no refund obligation, unless the 9th Circuit Court order is reversed.

In December 2005, a group of California entities filed separate claims with the Victim Compensation and Government Claims Board. These claims were filed as a result of the 9th Circuit Court ruling. The organizations filing these suits included the Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), SDG&E, and the California Oversight Board. The suits are against a number of California government entities, including DWR. These claims seek partial refunds from the sellers of energy and related services in the years 2000 and 2001. The suits contained similar allegations regarding partial refunds as those made in the original complaint to FERC.

### **Other Cases**

Several cases pending resolution may affect SWP operations and costs. The first case involves a FERC ruling that the cost of certain PG&E transmission facilities should be integrated into grid-wide charges to CAISO customers, including DWR. The department has appealed these charges on the basis that the facilities primarily benefit PG&E—not the grid as a whole—and the cost allocation mechanism should reflect this fact. (*California Department of Water Resources v. Federal Energy Regulatory Commission*, U.S. Court of Appeals for the Ninth Circuit (No. 04-76131).)

The *California Department of Water Resources v. Federal Energy Regulatory Commission* (U.S. Court of Appeals for the Ninth Circuit (No. 04-73577)) case involves a challenge to the manner in which the costs for the transfer of transmission facilities are allocated. FERC approved the transfer of transmission facilities at Anaheim and Riverside to CAISO. As part of this transfer, costs for the facilities were spread to the users of the grid, including DWR. The department is contesting the cost allocation mechanism in a current FERC proceeding. This appeal preserves the ability of DWR to contest costs in the administrative cost allocation proceeding.

The *California Department of Water Resources v. Federal Energy Regulatory Commission* (U.S. Court of Appeals for the Ninth Circuit (No. 05-74488)) case involves a challenge to the FERC decision concerning transmission access charge methodology. This charge is imposed on users of the CAISO grid to recover the embedded costs of the grid. DWR has appealed these charges, primarily on the basis that FERC failed to use time-of-use methodology.

The *California Department of Water Resources v. Federal Energy Regulatory Commission* (U.S. Court of Appeals for the District of Columbia, Case No. 04-7290) case involves a DWR challenge to a FERC order that gives CAISO the ability to dispatch (request to turn off or on) SWP generation and pumps based on economic criteria and without regard to water management needs.

DWR intervened in *Sacramento Municipal Utility District (SMUD) v. Federal Energy Regulatory Commission*, (D.C. Cir.) No. 04-1171, to support the SMUD claim

that SMUD has renewal rights to its extra-high voltage contract with PG&E. This high voltage contract terminated in 2005. DWR contended that its similar contract with PG&E provided renewal rights. The court ruled in favor of FERC, finding that SMUD did not have a right to an automatic renewal of the contract under federal energy law. This case is now final.

### **Colorado River**

Two lawsuits related to the Colorado River have potential implications for California water supply. The first lawsuit is *Imperial Irrigation District v. All Interested Persons* and eight related cases (Judicial Council Coordination Proceeding No. 4353, Sacramento County Superior Court). This lawsuit is a series of nine claims, which have been coordinated into a single proceeding, before the Sacramento County Superior Court. These lawsuits challenge the Quantification Settlement Agreement (QSA) and associated actions taken to implement the QSA. The QSA is a collection of 38 agreements that resolve disputes among water users in Southern California, regarding their rights to California's shrinking share of Colorado River water. The QSA facilitates California's plan to reduce its use by settling disputes regarding priority and use. For example: (1) transferring of conserved agricultural water from the Imperial Irrigation District (IID) to San Diego County Water Agency (SDCWA) for urban uses; (2) establishing water budgets for the parties; and (3) providing for the mitigation of environmental impacts and the restoration of the Salton Sea. Proceedings in the superior court have been stayed, pending oral argument before the Third District Court of Appeal, on Imperial County's petition for writ of mandate.

*Consejo de Desarrollo Economico de Mexicali, A.C. et al. v. Norton, et al.* (U.S. District Court, District of Nevada, Las Vegas, Case No. CV-S-05-0870-KJD-PAL), is a challenge to Reclamation lining the All American Canal. The All American Canal lining is a water conservation project that is an integral part of the QSA. The State, through DWR, is contributing \$220 million to the canal lining project. Mexican business leaders and California environmental groups filed a lawsuit that challenges the Secretary of the Interior and the Commissioner of the Bureau of Reclamation actions to authorize the All American Canal improvement project. This complaint seeks declaratory and injunctive relief. The plaintiffs assert a deprivation of water rights, including claims based on prior appropriation, estoppel, constitutional violations, Mexican federal law, and international and equitable concepts of apportionment and comity. The plaintiffs also challenge the action based on violations of NEPA, the Administrative Procedure Act, the Endangered Species Act, the Migratory Bird Treaty Act, and environmental mitigation obligations under the authorizing legislation (San Luis Rey Act (P.L. 100-675)) for the conservation project.

In November, the State of California filed a brief to: (1) request the court to grant a special appearance without submitting to the court's jurisdiction; and (2) move to dismiss the lawsuit, based on the fact that California is a necessary and indispensable party with 11th Amendment immunity from suit in federal court. This brief argues that California is an indispensable party because the plaintiffs are attempting to stake a claim to a portion of California's Colorado River apportionment. Opposition and response briefs were filed on the

California motion, and the parties are awaiting a ruling from the court.

### ***Castaic Lake Water Agency***

California Water Impact Network (CWIN) and the Friends of the Santa Clara River, both nonprofit environmental organizations, filed a Petition for Writ of Mandate against Castaic Lake Water Agency (Castaic Lake). This Petition for Writ of Mandate challenged Castaic Lake approval of a project to store up to 24,000 af of allocated 2002 Table A water, in the Semitropical Groundwater Storage Program, before the end of 2004. The plaintiffs alleged the approval of the project violated CEQA, the Urban Water Management Planning Act, and the Public Trust Doctrine. The CEQA process followed by DWR was upheld by the lower court. This matter is on appeal. The Friends of the Santa Clara River also filed a Reverse Validation Action in Sacramento County, which seeks to set aside the agreement. This case is stayed, pending the resolution of the CEQA case.

CWIN and the Planning and Conservation League (PCL) are also challenging the new EIR. This EIR is certified by Castaic Lake for the permanent transfer of 41,000 af of SWP Table A water to Castaic Lake, from Kern County Water Agency (Kern) member unit, Wheeler Ridge-Maricopa Water District. These lawsuits were filed on January 24 and 26, 2005. The original EIR, which was certified by Castaic Lake for this transaction, was successfully challenged in *Friends of the Santa Clara River v. Castaic Lake*. This EIR was challenged on the grounds that it tiered off the decertified Monterey Agreement EIR. In response to the Los Angeles Superior Court's Order on remand in that case, Castaic Lake decertified its original EIR on

December 27, 2002, and issued a Notice of Preparation for a new EIR on January 22, 2003. The new EIR, which does not tier off any EIR for the Monterey Agreement, was certified on December 23, 2004. DWR entered into contract amendments with both Castaic Lake and Kern, which implemented this transfer in 1999. DWR has been basing its SWP allocations to Castaic Lake on the increased Table A amount reflecting the transfer.

DWR is primarily concerned with the CWIN and PCL arguments that: (1) DWR, and not Castaic Lake, should be the lead agency under CEQA for this transaction; and (2) the EIR should tier off of the not-yet-complete DWR Monterey Plus EIR. Other issues raised by CWIN and PCL are that the EIR is inadequate under CEQA for a number of reasons, including that it violates the Urban Water Management Planning Act and the Public Trust Doctrine, and that it represents a prejudicial abuse of discretion.

These two cases were consolidated in May. No further action has occurred.

## Water Code Section 1810–1811

1810. Notwithstanding any other provision of law, neither the state, nor any regional or local public agency may deny a bona fide transferor of water the use of a water conveyance facility which has unused capacity, for the period of time for which that capacity is available, if fair compensation is paid for that use, subject to the following:

- (a) Any person or public agency that has a long-term water service contract with or the right to receive water from the owner of the conveyance facility shall have the right to use any unused capacity prior to any bona fide transferor.
- (b) The commingling of transferred water does not result in a diminution of the beneficial uses or quality of the water in the facility, except that the transferor may, at the transferor's own expense, provide for treatment to prevent the diminution, and the transferred water is of substantially the same quality as the water in the facility.
- (c) Any person or public agency that has a water service contract with or the right to receive water from the owner of the conveyance facility who has an emergency need may utilize the unused capacity that was made available pursuant to this section for the duration of the emergency.
- (d) This use of a water conveyance facility is to be made without injuring any legal user of water and without unreasonably affecting fish, wildlife, or other instream beneficial uses and without unreasonably affecting the overall economy or the environment of the county from which the water is being transferred.

1811. As used in this article, the following terms shall have the following meanings:

- (a) "Bona fide transferor" means a person or public agency as defined in Section 20009 of the Government Code with a contract for sale of water which may be conditioned upon the acquisition of conveyance facility capacity to convey the water that is the subject of the contract.
- (b) "Emergency" means a sudden occurrence such as a storm, flood, fire, or an unexpected equipment outage impairing the ability of a person or public agency to make water deliveries.
- (c) "Fair compensation" means the reasonable charge incurred by the owner of the conveyance system, including capital, operation, maintenance, and replacement costs, increased costs from any necessitated purchase of supplemental power, and including reasonable credit for any offsetting benefits for the use of the conveyance system.
- (d) "Replacement costs" means the reasonable portion of costs associated with material acquisition for the correction of unrepairable wear or other deterioration of conveyance facility parts which have an anticipated life which is less than the conveyance facility repayment period and which costs are attributable to the proposed use.
- (e) "Unused capacity" means space that is available within the operational limits of the conveyance system and which the owner is not using during the period for which the transfer is proposed and which space is sufficient to convey the quantity of water proposed to be transferred.

## Water Code Section 1812–1814

1812. The state, regional, or local public agency owning the water conveyance facility shall in a timely manner determine the following:

- (a) The amount and availability of unused capacity.
- (b) The terms and conditions, including operation and maintenance requirements and scheduling, quality requirements, term or use, priorities, and fair compensation.

1813. In making the determinations required by this article, the respective public agency shall act in a reasonable manner consistent with the requirements of law to facilitate the voluntary sale, lease, or exchange of water and shall support its determinations by written findings. In any judicial action challenging any determination made under this article the court shall consider all relevant evidence, and the court shall give due consideration to the purposes and policies of this article. In any such case the court shall sustain the determination of the public agency if it finds that the determination is supported by substantial evidence.

1814. This article shall apply to only 70 percent of the unused capacity.

## Environmental Review Acts

The National Environmental Policy Act (NEPA) (Title 42 United States Code sections 4321-4370 [1970]) and the California Environmental Quality Act (CEQA) (California Public Resources Code sections 21000-21177 [1970]) require government agencies to document and consider environmental consequences of their actions in their decision-making process. NEPA states that it is the goal of the federal government to use all practicable means consistent with other considerations of national policy to protect and enhance the quality of the environment. All federal agencies must prepare an environmental impact statement, including a discussion of mitigation measures and alternatives, for actions significantly affecting environmental quality.

CEQA is patterned after NEPA. According to CEQA, agencies are required to (1) disclose, through an environmental impact report, the significant effects proposed projects would have on the environment; and (2) search for ways to reduce or avoid environmental damage.

CEQA applies to projects directly undertaken, funded, or approved by State or local agencies. NEPA applies to projects directly undertaken, funded, or approved by federal agencies. The Department conducts many projects in cooperation with federal agencies. In those cases both CEQA and NEPA must be followed.

NEPA requires that mitigation measures and alternatives be disclosed to the public in the Environmental Impact Statement, but it does not generally require federal agencies to adopt such mitigation measures or alternatives. CEQA, on the other hand, does impose substantive duties on all California government agencies approving projects with significant environmental impacts to adopt alternatives or mitigation measures that they find to be feasible to substantially lessen these impacts, unless there are overriding reasons why they cannot. When a project is subject to both CEQA and NEPA, both laws encourage the agencies to cooperate in planning the project and preparing joint environmental documents.

Through the environmental review process, citizens can learn about those significant effects and, if the project is approved, the reasons for approving the project. The review process requires agencies to

- describe the proposed project;
- identify the lead and cooperating agencies involved in the project;
- determine the scope of study with responsible agencies and/or the public;
- prepare and distribute a draft EIS or EIR;
- respond to comments received on the draft;
- prepare the final EIS or EIR;



## Environmental Review Acts, Continued

- make findings and adopt feasible alternatives or mitigation measures to avoid significant effects, if applicable;
- adopt a monitoring plan to ensure compliance with mitigation measures; and
- prepare a list of permits required to implement the project if the project is approved.

The scoping phase, which occurs early in the review process, is particularly important because it enables government agencies to identify issues and topics to be considered when preparing the report.

Information gathered in the scoping phase helps agencies identify and evaluate reasonable alternatives, identify potential environmental impacts of the project, determine data and information needed, develop a work schedule, and allocate resources for preparing and distributing the draft environmental document for public review and comment.

NEPA requires a lead agency to involve the public during scoping, while CEQA does not. CEQA, however, does encourage public involvement at this stage. Members of the public may raise issues during the scoping phase and not just after the draft environmental document is prepared. Thus, the CEQA process leads to changes in projects through the development, consideration, and adoption of alternatives or enforceable mitigation measures to avoid or reduce any potential significant adverse effects on the environment.



## Chapter 7

# Water Supply Development and Reliability

**T***he Delta is the critical link between water supplies and water deliveries.*

## Significant Events in 2005

**D**uring 2005, the Department of Water Resources (DWR), the U.S. Bureau of Reclamation (Reclamation), Sacramento Valley upstream water users, and certain downstream water users continued work to implement the Sacramento Valley Water Management Agreement (SVWMA) settlement.

To assist local agencies assessing their overall water supplies, DWR provided current data on the SWP's ability to deliver water under 2005 conditions and for projected conditions through a report entitled *The State Water Project Delivery Reliability Report-2005*.

In 2005, DWR and Reclamation continued with the feasibility study and NEPA/CEQA process for the North of the Delta Off-Stream Storage Investigation.

**I**nformation in this chapter was contributed by the State Water Project Analysis Office, the Division of Planning and Local Assistance, and the Bay-Delta Office.

The Department of Water Resources (DWR) is working to improve the reliability of State Water Project (SWP) supplies and the annual Table A water allocations delivered to SWP contractors. Staff is engaged in planning activities to develop additional water supplies and storage capacity.

Developing new water supply and storage projects that are economically, environmentally, and technically sound, while satisfying institutional requirements and political concerns, presents significant challenges. Many concerns center on the possible adverse effects that additional storage and delivery facilities may have locally and on the Sacramento-San Joaquin Delta. In the SWP conveyance system, the Delta is the critical link between water supplies in the Sacramento Valley and deliveries to the Central Valley and Southern California.

The CALFED Bay-Delta Program is a component of a process defined in the State-federal Framework Agreement, signed in June 1994, which calls for a cooperative and coordinated process to solve long-term water quality and ecosystem problems in the Bay-Delta Estuary. The signatories of the agreement, known collectively as CALFED, became responsible for developing long-term solutions for fish and wildlife, water supply reliability, flood control, and water quality problems in the estuary. On August 28, 2000, CALFED released its Record of Decision, formalizing State and federal agreement on the CALFED Bay-Delta Program plan to address major Delta water issues, including establishment of the Environmental Water Account (EWA).

As a CALFED agency, DWR is working with the federal government, local agencies, and public interest stakeholder groups to ensure water supply reliability now and in

the future. To meet SWP contractors' needs for reliable, sufficient water supplies, DWR is engaged in planning, development, and local assistance to augment future SWP water supplies.

## Supply Development and Reliability

Some of these activities that DWR is engaged in, include the following:

- implementing programs to transfer water, such as the Dry Year Water Purchase Program, EWA, and facilitating transfers between SWP long-term contractors and other agencies, including Central Valley Project (CVP) contractors;
- assisting in the development and implementation of local and regional conjunctive use programs in the Sacramento Valley;
- using SWP funds to assist in monitoring and developing local water supplies;
- managing the Feather River watershed above Lake Oroville to reduce sedimentation in the lake to preserve storage capacity; and
- investigating and evaluating storage projects (see CALFED Bay-Delta Program section below).

## Water Conveyance Through the SWP

DWR encourages and arranges for temporary transfers of water using SWP

conveyance facilities for long-term SWP contractors and various agencies to help meet local, State, and environmental water supply needs. As a practical matter, SWP facilities are often needed to convey transfer water to the place of use of the transferee. State law requires DWR to make unused SWP capacity available for transfers upon payment of fair compensation, provided that: (1) no legal user of water would be injured; (2) there would be no unreasonable effect on fish, wildlife, or other instream beneficial uses; and (3) there would be no unreasonable effect on the overall economy or the environment of the county from which the water is being transferred. Water transfers can occur in three different ways:

- 1) water exchanges among the SWP long-term contractors or between contractors and non-SWP contracting entities;
- 2) water transfers among long-term SWP contractors; and
- 3) transfers of non-SWP water to the non-SWP and SWP agencies.

The transferability of water depends on the source of the water right being transferred. For example, provisions in the California Water Code authorize “temporary transfers” (Sections 1725-1732), “transfers by water suppliers” (Sections 1745-1745.11), “irrigation districts” (Section 22228), and California Water Districts (Section 34525). Before allowing the use of SWP conveyance facilities by other agencies, DWR makes determinations regarding the use of surplus conveyance capacity (Section 1810). (For information regarding specific transfers or exchanges, please see Chapter 9.)

### ***Transfer and Exchange Evaluations***

An important element of any water transfer is determining what quantity, if any, is transferable. Some provisions of the Water Code (e.g., CWC Sections 1702, 1706, and 1725), are intended to protect other legal users of water and fish and wildlife from possible adverse effects of a water transfer. Such protections reflect the “no injury” rule, which originates in the common law. Basically, the rationale for the no injury rule in state water law is to protect senior water users (those with the oldest water rights) from junior diverters, while protecting junior water right holders from the expansion of senior water rights. Hence, under the no injury rule, only “new water” is transferable; i.e., water that is added to the downstream water supply as a result of the transfer. Further, a transfer would not be authorized to the extent that it reduced the availability of water for downstream users, regardless of the water priority of those users.

Water Code Section 1810(d) requires DWR to consider all three types of third-party impacts (i.e., to legal users, to instream uses, and to the economy of the area from which the water would be transferred). DWR must determine whether to allow use of its surplus water conveyance capacity for a water transfer. Other provisions in the law specify the requirements that must be met for DWR to allow use of its conveyance facilities.

Generally, transfer water is developed through four methods: (1) surplus water released from storage facilities; (2) substituting groundwater for transferred surface water; (3) idling agricultural land to make water available for transfer; and (4) undertaking conservation activities that develop surplus water (e.g., under

CWC Section 1011). Transfers that involve groundwater substitution or fallowing may cause third party impacts; so provisions of state law limits their extent. For example, Water Code Sections 1745.10 and 1745.11 generally require a water supplier that increases groundwater use to replace transferred surface water so that the groundwater use: (1) would be consistent with a groundwater management plan adopted pursuant to State law for the affected area; or (2) would not create or contribute to conditions of long-term overdraft in the affected groundwater basin.

Groundwater substitution transfers have the potential to cause injury to other local groundwater users due to the additional pumping needed to allow the surface water transfer to take place. Injury can also occur due to stream depletion induced by pumping wells near the stream. The amount of water credit given such a transfer is the amount of the increased pumping that takes place to support the transfer, which assumes there is no stream depletion by the additional pumping. If there is pumping-induced stream depletion, then the groundwater pumped is not truly an alternative source to the surface water supply, and the net surface water flows will not increase as assumed. Consequently, in order to evaluate possible impacts to SWP supplies by groundwater substitution transfers that propose using SWP conveyances, DWR requires information necessary to support the assumption that the additional groundwater pumping does not affect the surface water system.

Water transfers are subject to compliance with the California Environmental

Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

The State Water Project Analysis Office, Division of Operations and Maintenance, and the Office of the Chief Counsel perform evaluations of the effects of proposed non-SWP water transfers on the SWP. This team develops formal responses to specific issues, projects, or programs. The Office of Water Transfers evaluates possible impacts to the SWP by proposed water transfers (with technical assistance from the Division of Planning and Local Assistance.) The team also identifies and evaluates water transfer proposals and water acquisitions by Reclamation and other water agencies, and proposes settlement agreements for potential impacts on the SWP.

Emphasis on early intervention allows DWR to tailor proposals to maximize benefits or minimize adverse effects to the SWP, other legal water users, and the environment. The team monitors Reclamation contract renewal processes to evaluate potential impact. These activities help DWR understand the potential cumulative impact of other agencies' actions on the SWP and to proactively address those actions.

This team also explores potential transfer options available to the SWP and individual contractors. Analysis of contractor profiles helps DWR facilitate transfers and exchanges between individual contractors.

## **SWP Delivery Reliability Report**

To assist local agencies assessing their overall water supplies, DWR provided current data on the SWP's ability to

deliver water under 2005 conditions and for projected conditions through a report entitled *The State Water Project Delivery Reliability Report–2005*. A draft report underwent a 30-day public review during November and December 2005. The information contained in this report was recommended by DWR in May 2005 for use by SWP water supply contractors in developing their 2005 Urban Water Management plans. The 2005 report will be finalized in 2006, and the next report in this biennial series is expected in 2007.

Water delivery reliability depends on three factors: the availability of water at the source; the ability to convey water from the source to the desired point of delivery, and the level of demand. Information in *The State Water Project Delivery Reliability Report–2005* is based on the assumption that future weather patterns will be similar to those in the past. As more information becomes available on the impact of global warming upon SWP water supply, it will be analyzed in future editions of this report. In addition, the analysis of the ability to convey water from the source to the point of delivery assumes only SWP facilities and permits existing in 2005 would be used. No planned facility improvements to the SWP are assumed to provide a conservative estimate of water delivery reliability. Lastly, the level of demand for SWP water, the amount and pattern of demand, were derived from historical data and information received from SWP contractors.

The probability that a given level of SWP Annual Table A amount will be delivered from the Delta for conditions projected to exist in year 2025 is shown in Figure 7-1. The following can be deduced:

- In 75 percent of the years, annual SWP water delivery is estimated to be at or above 2.7 million af per year (65 percent of 4.13 million af);
- In 50 percent of the years, it is estimated to be at or above 3.5 million af per year (85 percent of 4.13 million af); and
- In 25 percent of the years, it is at 4.13 million af per year.

Detailed information on the assumptions, data, and results of additional studies, as well as the other scenarios for annual Table A amounts can be found in the reliability report, published on the Internet at <http://baydeltaoffice.water.ca.gov/swpreliability/index.cfm>.

## Conjunctive Use and Groundwater Substitution

Conjunctive use refers to the planned and coordinated management of surface water and groundwater to improve water supply reliability. A typical conjunctive use project recharges a groundwater basin with surface water in years when excess surface water is available. That project will then extract the stored water for use by pumping additional groundwater in years when additional water supply is needed. By using a groundwater basin as a reservoir in this manner, surface water that would otherwise be lost can be added to the available water supply.

In the 1990s, groundwater substitution water transfers, a form of conjunctive use, became increasingly controversial in some regions of the State. Some counties, particularly in the Sacramento Valley, adopted ordinances designed to regulate water transfers that involve groundwater

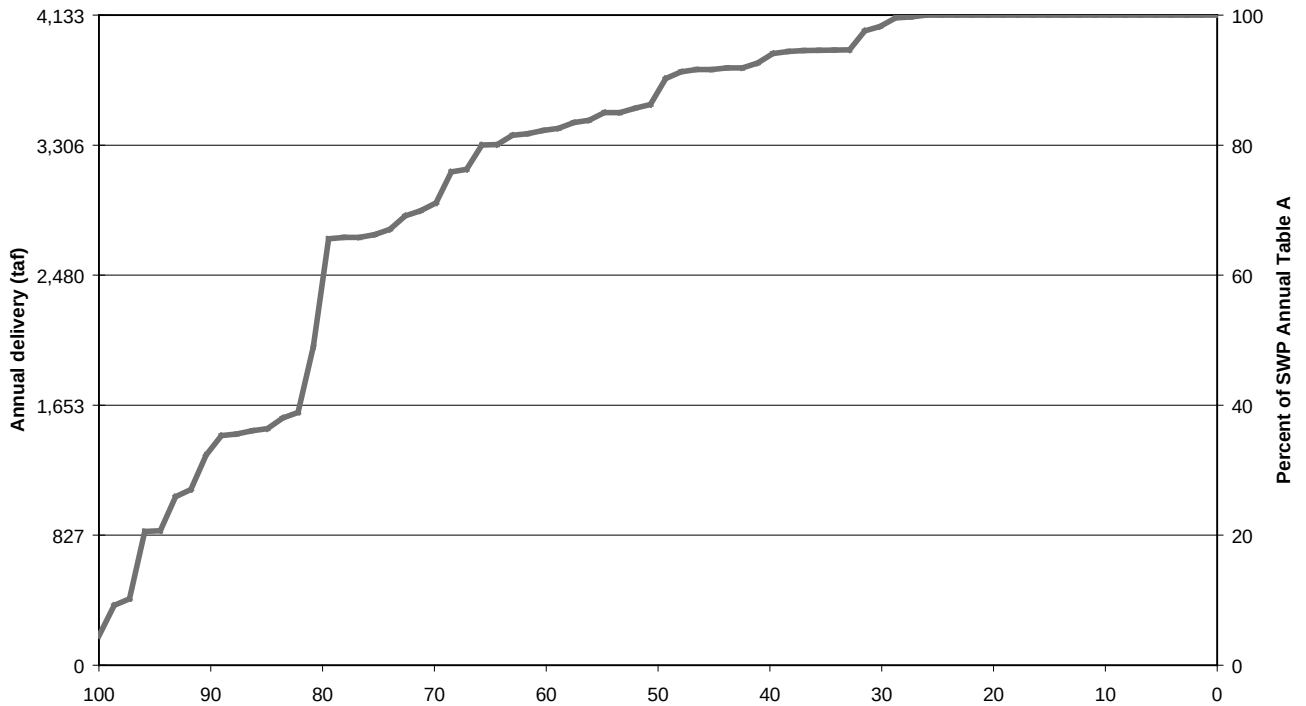


**Figure 7-1. Projected SWP System Delivery Capability (Scenario 2025, Annual Table A)**

substitution. Groundwater substitution refers to the practice of increasing groundwater pumping to replace an available surface water supply. The surface water becomes available to be used elsewhere. One possibility is to sell that newly-available surface water to willing buyers downstream.

Conjunctive use projects can be operated with negligible impacts to the environment and third parties. However, the effects of implementing conjunctive use projects varies as the pre-existing condition of groundwater basins vary. For instance, Sacramento Valley groundwater basins tend to refill completely after an average winter season. Therefore, additional groundwater withdrawals associated with groundwater substitution water transfers,

typically during the irrigation season, result in additional loss to streamflow during the following wet season, or even later. A successful conjunctive use operation in the Sacramento Valley operates so that the aquifer refills by depleting streamflow during wet winter months, when streamflow reductions have no detrimental effect on water supply.

Due to the potential for conjunctive use projects and groundwater substitution water transfers to deplete streamflow and impact State Water Project operations, DWR's Sacramento Valley Groundwater Program evaluates water transfers, conjunctive use, and other water management proposals in the Sacramento Valley.



### ***Sacramento Valley Groundwater Program***

Local agencies are increasingly active in developing groundwater management programs and asserting control over water supply development and management activities. DWR works with local agencies and interested parties by providing technical and other assistance to improve groundwater monitoring and management to study and develop water management alternatives, help alleviate local anxieties, and build consensus for local and regional conjunctive use.

The Sacramento Valley Groundwater Program, a component of the SWP Future Supply Program, originally identified and implemented individual conjunctive use projects to augment SWP supplies. Now this program focuses on implementing the Sacramento Valley Water Management Agreement (often referred to as Phase 8) and evaluating water transfers. It also supports EWA Program components and implementation of the Yuba Accord Conjunctive Use component. It coordinates these efforts with DWR's Conjunctive Water Management Program in the geographic areas in which they overlap.

In 2005, Sacramento Valley Groundwater Program activities involving local agencies included the following:

**Yuba County.** DWR, in cooperation with the Yuba County Water Agency (Yuba) operated an adaptive long-term groundwater monitoring and measurement program. Specific activities focused on evaluating the interaction between the Yuba River, the Bear River, and its local groundwater basin, and impacts to other groundwater users. With the development of the Yuba Accord, the

operations of the Yuba River system are becoming intertwined with those of the SWP. Monitoring activities are focused on incorporating conjunctive use into Yuba operations to meet the agency's Phase 8 and Yuba Accord objectives.

**Lower Colusa Basin.** DWR assisted Reclamation District 108 and River Garden Farms with groundwater monitoring that will be used to determine the effects of implementing conjunctive use projects for the Sacramento Valley Water Management Program. These projects are expected to provide up to 25,000 af of capacity to the program.

**Butte Basin.** DWR's efforts in Butte County improved the technical understanding of the Butte Basin groundwater system, especially as it relates to groundwater resources in adjacent Glenn and Tehama Counties. Additionally, DWR assisted the Butte County in collecting and evaluating groundwater monitoring data.

**Glenn County.** DWR provided technical assistance to Glenn County and its local irrigation districts. This included assisting in developing groundwater level, groundwater quality, and subsidence monitoring networks in the county to facilitate future water transfers and the development of Sacramento Valley Water Management Program (SVWMP) conjunctive-use projects that will benefit the SWP. These activities are coordinated with related investigations by DWR's storage program. Recently, SVWMP participants have expressed interest in building wells that develop deep groundwater aquifers as a means of avoiding groundwater level impacts to other groundwater users. DWR is assisting local participants determine the feasibility

of this groundwater management technique.

## **Watershed Management**

This continuing effort evaluates the state of the Feather River watershed above Lake Oroville, and it identifies actions that can be taken within the watershed to increase base-flow runoff and reduce sedimentation. The initial effort explored ways to improve local water supplies without adversely affecting SWP supply or operations. Early activities included installing monitoring equipment and gathering pertinent data on stream flows, water quality, erosion, and land use. This data will be used to formulate reports and studies for future actions. The work continues to receive strong local support.

## **SWP Water Rights Activities**

### **Water Rights Permits**

Operations of the SWP are governed by the terms and conditions contained in DWR's water rights permits and licenses along with other state and federal regulatory restrictions including biological opinions for the protection of endangered species. DWR currently holds 15 water rights for the operation of the State Water Project and upper Feather facilities, five of which specifically authorize SWP operations at the Oroville/Thermalito and Delta facilities, including the North Bay Aqueduct, for water supply purposes. Each permit specifies the authorized quantities of direct diversion and diversion to storage, place of use and time within which the permitted quantities must be put to beneficial use. A change in any of the terms and conditions contained in the water rights permits and licenses requires the approval of the SWRCB.

Diversion and use of SWP water throughout the SWP service area has steadily increased since initial operations in the 1960s. However due to a number of factors including operational and regulatory constraints, the beneficial use of water has not yet reached the maximum quantities anticipated for full development of the SWP. When the full permitted quantity of water authorized under the water rights permits has not been utilized by the date specified in the permit, a petition for time extension must be submitted to the SWRCB. In 2005, DWR submitted a Petition for Extension of Time to the SWRCB for permit 16483 (Application 17514A) authorizing diversions at the North Bay Aqueduct in order to allow additional time to fully develop the diversion and use of water within the NBA service area.

In addition, in 2005, DWR submitted to the SWRCB a Petition for Change in Place of Use in four permits authorizing diversions at the Banks pumping plant. The Petition requests the SWRCB to correct an error in the DWR water rights to include Oak Flat Water District within the authorized SWP place of use. Since the 1960s, Oak Flat has received SWP water under its long-term water supply contract with DWR. In the 1990s during review of DWR's water rights, it became apparent that the Oak Flat service area was inadvertently omitted from the authorized SWP place of use. The petition explains that correcting the error and adding Oak Flat to the SWP place of use will not result in any changes to SWP operations or deliveries.

## SWP Bay-Delta Proceedings—2005 Activities

DWR has worked intensely for more than 40 years to develop the appropriate water quality standards for the San Francisco Bay and Sacramento–San Joaquin Delta Estuary and identify which water sources are required to meet those standards. SWRCB has received and reviewed numerous testimony and evidence to establish water quality objectives for the Bay-Delta Estuary to protect urban, agricultural, and fish and wildlife uses.

### Cease and Desist Order Hearings

In February 2005, DWR and Reclamation petitioned SWRCB to temporarily change, and delay, the effective date for implementation of the southern Delta agricultural objective in Decision 1641, scheduled to begin in April 1, 2005. A second petition was submitted requesting a long-term change of the date to April 1, 2008, the date when the South Delta permanent gates were scheduled to be operating. The SWRCB denied the temporary change petition, and no action was taken on the long-term change petition.

On May 3, 2005, SWRCB notified DWR and Reclamation of its intention to issue a cease and desist order because of a threatened violation of the southern Delta agricultural water quality objective of 0.7 electrical conductivity (EC), scheduled to be in effect annually between April 1 and August 31, beginning 2005. The SWRCB D-1641 conditions the operation of the SWP and the CVP, with implementation of the agricultural objective. DWR and Reclamation requested a hearing on the cease and desist order. In October

and November, DWR and Reclamation presented evidence and argued that the cease and desist order should not be issued.

On December 30, 2005, SWRCB issued a proposed draft cease and desist order requiring DWR and Reclamation to construct permanent gates in the southern Delta or take alternative measures for achieving the water quality objective by 2009. Additionally, the draft order would require DWR and Reclamation to report to SWRCB if there is a threat of non-compliance of the water quality requirements, and to report the reasons for the non-compliance. The Board will then determine if enforcement actions are necessary. SWRCB has set a hearing date to consider adoption of the proposed order in January 2006. The 0.7 millimhos/cm objective was not exceeded in 2005.

### Sacramento Valley Water Management Agreement

During 2005, DWR, Reclamation, Sacramento Valley upstream water users, and certain downstream water users continued work to implement the Sacramento Valley Water Management Agreement (SVWMA) settlement, in lieu of continuing with SWRCB Phase 8 hearings. SVWMA avoided the adversarial issues of Phase 8 and was developed to promote better management of California's water resources.

SVWMA provides that DWR and Reclamation will continue to be responsible for meeting the flow-related water quality objectives of D-1641, and a series of local projects, owned and operated by Sacramento Valley water users, will be developed to provide up to

185,000 af of water supplies for use by the sponsoring local agencies as well as water to the SWP and CVP for Delta water quality and supply. A key element in developing the agreement was the preparation of a short-term workplan for investigating short-term projects to meet the goals of SVWMA. The short-term workplan was adopted with approximately 45 projects falling into the following general categories:

- water management—conjunctive use;
- reservoir reoperation;
- system improvements;
- surface water and groundwater planning; and
- regulatory/institutional arrangements.

It is anticipated that short-term projects will operate for 10 years. Consultants were hired to work on the Environmental Impact Report/Environmental Impact Statement (EIR/EIS). DWR and Reclamation, in cooperation with the Sacramento Valley water users and downstream water users, are preparing environmental analysis and documentation for the projects, as required prior to implementation.

SVWMA establishes a Technical Measurement and Monitoring Committee responsible for developing monitoring programs for the projects being developed, assessing their accomplishments and impacts, and recommending remediation activities if needed. The local agencies, DWR, and Reclamation will enter into specific implementation agreements for each project.

SVWMA also provides for the possible development of a long-term workplan and

settlement agreement, that could continue certain short-term projects and other projects, which could meet the goals of the Phase 8 settlement.

### **Periodic Review of the 1995 San Francisco Bay / Sacramento-San Joaquin Delta Estuary Water Quality Control Plan**

SWRCB previously received comments from agencies and members of the public regarding any elements of the 1995 Bay-Delta Water Quality Control Plan that SWRCB should consider amending. DWR presented its comments to the Board regarding the scope of issues, supporting the Board's review and urged them to consider the issues in context with recently proposed Delta actions and progress that could provide useful information to help evaluate whether modifications to existing water quality objectives were needed. SWRCB extended the comment period and encouraged the participants to provide the Board with their remarks.

The SWRCB staff prepared a report summarizing comments received from agencies. This report, adopted on September 20, 2004, recommended the following issues be considered during the upcoming workshops:

- Delta outflow;
- river flows: Sacramento River at Rio Vista;
- river flows: San Joaquin River at Airport Way Bridge, Vernalis: February to April 14, and May 16 to June;
- export limits;
- flow objectives in the San Joaquin River at Airport Way Bridge, Vernalis: 31-day pulse flow April 15 through May 15;

## CALFED Bay-Delta Program

The San Francisco Bay/Sacramento-San Joaquin Delta (Bay/Delta) Estuary is the largest estuary on the West Coast. It is a maze of tributaries, sloughs, and islands, and a haven for over 750 plants and wildlife species. It is also the hub of California's two largest water distribution systems—the Central Valley Project, operated by the U.S. Bureau of Reclamation, and the State Water Project, operated by the Department of Water Resources. Together, these water development projects divert approximately 20 to 70 percent of the natural flow in the system, depending on the amount of runoff available in a given year. This, along with other issues, such as population growth and pollution, have had a serious impact on water supply and quality, and on the fish and wildlife resources in the estuary. Although there was consensus that the Bay-Delta estuary is important as both a reliable source of water and as a fish and wildlife habitat, there was none for solving conflicts regarding methods of management, conservation, increasing capacity of the system, and protecting the ecology of the region.

In June 1994, in the quest for solutions to the resource problems in the Bay-Delta, State and federal agencies signed an agreement to (1) coordinate their actions to meet water quality standards to protect the Bay-Delta estuary; (2) coordinate the operation of the State Water Project and the Central Valley Project more closely with recent environmental mandates; and (3) develop a process to establish a long-term Bay-Delta solution to address four categories of problems—ecosystem quality, water quality, water supply reliability, and levee system vulnerability. This agreement laid the foundation for the Principles of Agreement signed in December 1994 by the State and federal governments, detailing interim measures for both environmental protection and regulatory stability. This Accord led to the CALFED Bay-Delta Program, which began in May 1995, and the Record of Decision, which was signed on August 28, 2000.

The California Bay-Delta Act of 2003 established the California Bay-Delta Authority as the new governance structure and charged it with providing accountability, ensuring balanced implementation, tracking and assessing the CALFED Bay-Delta Program progress, using sound science, assuring public involvement and outreach, and coordinating and integrating related government programs.

The Program is designed to address the complex issues that surround the Bay-Delta and is a cooperative interagency effort involving 18 State and federal agencies with management or regulatory responsibilities for the Bay-Delta. It is an unprecedented effort to build a framework for managing California's most precious natural resource—water. The establishment of the CALFED Bay-Delta Program represents State and federal government in partnership, launching the largest, most comprehensive water management program in the world.

- southern Delta electrical conductivity;
- chloride objectives, compliance location at Contra Costa Canal at Pumping Plant No. 1, and potential new objectives;
- salmon protection;
- Delta Cross Channel gates closure;
- changes to the water quality compliance and baseline monitoring program; and
- recommended changes to the program of implementation.

On August 31, 2005, SWRCB convened a workshop to receive additional evidence on the Delta outflow objectives. A panel consisting of federal and State agencies presented its comments on issues revolving causes and effects of the pelagic organism decline (POD). The scientists were still at early stages of understanding the causes of such decline. The State Water Contractors and California Urban Water Agencies suggested performing operational flexibility for both SWP and CVP. Bay-Delta Institute and Central Delta Water Agencies were against such actions. SWRCB recommended that one of the Board staff, working under the division chief, be directly involved in the above process and report future progress to the Board.

## CALFED Bay-Delta Program

The California Bay-Delta Authority (CBDA) oversees the implementation of the CALFED Bay-Delta Program for the 25 State and federal agencies working cooperatively to improve the quality and reliability of California's water supplies, while restoring the Bay-Delta ecosystem.

The California Bay-Delta Act of 2003 established the CBDA as the new governance structure and charged it with providing accountability, ensuring balanced implementation, tracking and assessing the CALFED Bay-Delta Program progress, using sound science, assuring public involvement and outreach, and coordinating and integrating related government programs.

The mission of the CALFED Bay-Delta Program is to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta. DWR has vigorously supported this effort, seeing it as a means to develop and manage the State's water resources to meet the water delivery commitments of the SWP, and to benefit both the public and the environment.

The CALFED Bay-Delta Program was envisioned as a 30-year plan and is implemented through 11 major program elements. The first 7-year phase of implementation, Stage 1, includes planning for proposed large facilities and implementation of lesser facilities. DWR is the State lead agency for the storage program element, which consists of surface storage studies and groundwater programs and projects.

## Storage Program

This is a comprehensive program with potential benefit for the SWP, consisting of actions related to surface and groundwater storage. The Division of Planning and Local Assistance has been working with the CALFED agencies to enhance storage as well as conjunctive-use programs that support local project development via

loans and grants. The Storage Program is part of an ongoing evaluation of the appropriate role of storage, both groundwater conjunctive use and surface storage.

### ***Surface Storage Investigations***

The Surface Storage Investigations are developing environmental documentation and feasibility studies for four of the five surface storage projects identified for further study in the CALFED Record of Decision (ROD.)

**In-Delta Storage Program.** In 2001, DWR, in coordination with the CBDA and Reclamation, began a planning study to evaluate the Delta Wetlands Project and other In-Delta storage options. This study, completed in May 2002, concluded that the project concepts proposed by Delta Wetlands were generally well planned. However, design modifications and further evaluations were needed before considering public ownership of the project.

The In-Delta Storage Project would provide capacity to store approximately 217,000 af of water in the South Delta for a wide array of water supply, water quality, and ecosystem benefits. The project would include two storage islands (Webb Tract and Bacon Island) and two habitat islands (Holland Tract and Bouldin Island), similar to that proposed by Delta Wetlands, over a decade.

DWR, in coordination with CBDA and with technical assistance from Reclamation, completed the Draft In-Delta Storage Program State Feasibility Study in 2004. The State Draft Feasibility Report addresses the technical feasibility of the proposed In-Delta Storage Project.

In response to public comments on the report, new studies were conducted in 2005 on a broad array of issues, including water supply and quality, project design, risk analysis, environmental evaluations, and construction costs. New information gathered during the response to the June 2004 Middle River levee breach and flooding of Jones Tract was also incorporated in these studies.

**Los Vaqueros Reservoir Expansion.** Contra Costa Water District owns and operates the 100,000 af Los Vaqueros Reservoir just northwest of the Sacramento-San Joaquin Delta. The Los Vaqueros Reservoir Expansion would increase the reservoir storage up to 400,000 af, for a potential storage capability of 500,000 af.

The objectives of the Los Vaqueros Reservoir Expansion are: (1) improve Bay Area water supply reliability; (2) provide an environmental water supply to the long-term EWA or similar program; and (3) improve water quality for Bay Area water users.

Contra Costa Water District ratepayers voted to support further studies of the Los Vaqueros Reservoir Expansion in the March 2004 advisory vote. In 2005, Reclamation, in coordination with DWR and Contra Costa Water District, completed the Initial Alternatives Information Report. Also in 2005, Reclamation filed a Notice of Intent under NEPA for preparation of an EIS. Contra Costa County Water District is the lead agency under CEQA and, in conjunction with Reclamation and DWR, will continue with the feasibility study and environmental documentation.

**Shasta Lake Enlargement.** Reclamation, in coordination with DWR and other agencies, is conducting a feasibility study of expanding Shasta Dam and Reservoir, primarily to promote increased survival of anadromous fish populations in the upper Sacramento River and to increase water supply reliability. An enlargement of Shasta Dam would inundate additional lands around the existing reservoir and affect a portion of the McCloud River. California Public Resources Code Section 5093.542(c), the Wild and Scenic Rivers Act, states that, “except for participation by the Department of Water Resources in studies involving the technical and economic feasibility of enlargement of Shasta Dam, no department or agency of the state shall assist or cooperate with, whether by loan, grant, license, or otherwise, any agency of the federal, state, or local government in the planning or construction of any dam, reservoir, diversion, or impoundment facility that could have an adverse effect on the free-flowing condition of the McCloud River, or on its wild trout fishery.”

The State’s fiscal year 2005-2006, budget did not include funding for DWR to continue to participate in this study. However, Reclamation continues to work on this project. In 2005, Reclamation filed a Notice of Intent to prepare the EIS consistent with requirements of NEPA for the Shasta Lake Water Resources Investigation. Six public scoping meetings were held to solicit public input on topics to be addressed in the EIS, including resources to be evaluated, alternatives to be considered, and significant concerns and issues.

#### **North-of-the-Delta Offstream Storage.**

DWR and Reclamation are working in partnership with local and other State and federal agencies to further study north-of-the-Delta offstream storage opportunities. The North-of-the-Delta Offstream Storage (NODOS) Investigation focuses on potential projects on the west side of the Sacramento Valley, including Sites Reservoir.

Storing water in offstream reservoirs during excess flow periods provides opportunities to increase water storage in an environmentally-sensitive manner. The stored water could then be made available for beneficial uses, including enhancing water management flexibility in the Sacramento Valley and the Bay-Delta, reducing water diversions on the Sacramento River during critical fish migration periods, increasing the reliability of supplies for the Sacramento Valley and statewide, and providing storage and operational benefits for other CALFED programs, including Delta water quality and EWA.

In 2005, DWR and Reclamation continued with the feasibility study and NEPA/CEQA process for the NODOS Investigation. Accomplishments for NODOS in 2005 included completion of engineering feasibility studies on dams and appurtenant structures, conveyance facilities, and road relocations, and on reverse flow facilities, for releasing water back to the river.

#### **Upper San Joaquin River Basin Storage**

**Investigation.** DWR and Reclamation, in coordination with other State and federal agencies, are evaluating increased storage in the upper San Joaquin River watershed. This additional storage could be added by



expanding Millerton Lake by raising Friant Dam, or a functionally-equivalent storage program. Potential benefits of the Upper San Joaquin River Basin Investigation are: (1) contribute to restoration of the San Joaquin River; (2) improve water quality of the San Joaquin River; and (3) facilitate additional conjunctive management and water exchanges that improve the quality of water deliveries for urban communities. Other benefits could include hydropower, flood control, and recreation.

In 2005, DWR and Reclamation continued with the feasibility study and the NEPA/CEQA process for the Upper San Joaquin River Basin Storage Investigation. Accomplishments for the Upper San Joaquin River Basin Storage Investigation in 2005 included completion of the Federal Initial Alternatives Information Report.

### ***Conjunctive-Use Programs***

The CALFED Storage Program component, like DWR's Conjunctive Water Management Program, emphasizes the importance of forming partnerships with local agencies and stakeholders to assist in planning and developing conjunctive water management projects. Six principles guide the implementation of this component:

- local planning process;
- local control of proposed projects;
- voluntary implementation of projects;
- priority for in-basin water needs;
- compensation for out-of-basin transfers; and
- basin-wide planning and monitoring the Water Transfer Program.

DWR actively participated in the formulation of CALFED's Water Transfer Program through the Bay-Delta Advisory

Council Water Transfer Work Group and the Transfers Agency Group. The program proposed a framework of actions, policies, and processes to facilitate water transfers and further develop a statewide water transfer market. The program document describes the relationship of water transfers to other water management actions and programs, discusses existing laws and statutes, and identifies issues and problems related to transfers. It also makes recommendations to resolve these issues and suggests strategies to implement them.

As part of the Water Transfer Work Group, DWR staff, along with other agencies, assisted SWRCB in the formulation and publication of *A Guide to Water Transfers* (July 1999 draft) in order to provide a resource for information.

In 2002, DWR drafted transfer white papers based on SWRCB's Guide and discussions with Sacramento Valley water agencies. The white papers are updated as information becomes available.

### **Conveyance Program**

The Conveyance Program consists of projects proposed in the North and South Delta. The North Delta Program is comprised of studies related to the Delta Cross Channel, a potential through-Delta facility, and a project to improve flood management and the ecosystem along the Mokelumne River and Franks Tract.

**North Delta.** Three North Delta conveyance facilities improvements are being evaluated. One is to improve operational procedures for the Delta Cross Channel to address fishery and water quality concerns, the second is a screened through-Delta

facility on the Sacramento River, and the third is the Franks Tract Project, which involves installation of operable gates either on Three Mile Slough or West False River to improve water quality and benefit fisheries. DWR is leading all three studies in cooperation with other agencies. DWR is in the process of initiating the preparation of an EIR/EIS for the Franks Tract Project.

With the North Delta Flood Control and Ecosystem Restoration Project, solutions to improve flood management and the ecosystem are being considered, including setback levees, detention basins, dredging, and levee degradation for floodplain expansion.

**South Delta.** Actions in the South Delta include the South Delta Improvement Program, implementing flood/ecosystem improvements in the lower San Joaquin River, and potential interties between the SWP and CVP.

SDIP is a key component of the CALFED Bay-Delta Program. The purpose of SDIP is to do the following:

- improve the reliability of existing SWP facilities;
- ensure that water of adequate quantity and quality is available for diversion to the South Delta Water Agency's service area for beneficial use; and
- reduce the effects of SWP exports on both aquatic resources and direct losses of fish in the South Delta.

The proposed project is likely to consist of the following:

- three flow-control structures to improve local water levels and circulation in

South Delta channels;

- a fish-control structure to improve fish migration in the San Joaquin River;
- some dredging in West Canal to improve conveyance capacity to Clifton Court Forebay;
- extensive dredging in the South Delta to improve channel capacity for local agricultural users;
- modifications to existing agricultural diversion intakes; and
- planning to build a new intake to Clifton Court Forebay and increase the export limit to 8,500 cfs.

For more information on the North and South Delta, see Chapter 2, *Delta Resources*.

## **Environmental Water Account**

EWA is a cooperatively managed program intended to provide protection to the fish of the Bay-Delta Estuary through environmentally beneficial changes and increased flexibility in the operations of the SWP and CVP, while maintaining water supply reliability to the projects' water users. Responsibility for implementing EWA rests with National Marine Fisheries Service (NOAA Fisheries), U.S. Fish and Wildlife Service (USFWS), and Department of Fish and Game (DFG) (management agencies), as well as with Reclamation and DWR (project agencies).

The management agencies are responsible for managing EWA assets and recommending SWP/CVP operational changes beneficial to the Bay-Delta ecosystem and the long-term survival of fish species. The project agencies are responsible for acquiring EWA assets and cooperating with the management agencies in administering EWA and

implementing operational changes proposed by the management agencies, as appropriate.

For more details on EWA deliveries, see Chapter 9, *Water Contracts and Deliveries*.

Under EWA, fish protection is achieved by periodic curtailment of project water delivery from the Bay-Delta to project water users south of the Delta and replacing it at a later date within the same calendar year. This necessitates the acquisition of EWA assets, which are used to replace the project water supply. EWA assets consist of variable assets, which are acquired through changes in operations; fixed assets, which are acquired through water purchases from willing water sellers; source shifting, which involves deferral of scheduled delivery of water by willing participants; and other nonwater assets, such as 500 cfs dedicated pumping capacity at Banks Pumping Plant. EWA is considered operational for any year when these assets are in place and Endangered Species Act commitments are provided by the management agencies. EWA was operational starting in 2001.

In 2001, DWR and Reclamation initiated work on a joint EIS/EIR document for EWA, which takes into consideration the environmental impacts associated with use of EWA, on both SWP and CVP operations through December 2007, and will allow for multiyear EWA contracts with willing water sellers.

The EWA Project and Management Agencies completed and approved a joint EIS/EIR for the short-term EWA pertaining to the acquisition and management of EWA assets between 2004 and 2007. In July 2004, the Agencies began the process of developing a long-term EWA EIS/EIR.



## Chapter 8 Water Supply

*S*nowpack in the Sierras

## Significant Events in 2005

California experienced higher than average rainfall and mountain snowpack during water year 2004–2005. The State received precipitation at 140 percent of average in 2004–2005, as compared to 85 percent of average in 2003–2004.

Statewide river runoff totaled 105 percent of average in the 2004–2005 water year. Runoff in the Sacramento River and San Joaquin River regions was 95 percent and 150 percent of average, respectively. Feather River unimpaired inflow to Lake Oroville was 4.3 maf (90 percent of average) for the water year, compared to 3.8 maf (80 percent of average) the previous year.

*Information from this chapter was contributed by the Division of Flood Management, the Division of Operations and Maintenance, and the State Water Project Analysis Office.*

The Department of Water Resources (DWR) monitors precipitation, calculates runoff, and operates storage facilities during each water year. The official California water year runs from October 1 through September 30. DWR works during the water year to fulfill its key contractual obligations to the State Water Project (SWP) long-term water supply contractors.

## Water Year 2004–2005

### Precipitation and Snowpack

California experienced higher than average rainfall and mountain snowpack during water year 2004–2005. The State received precipitation at 140 percent of average in 2004–2005, as compared to 85 percent of average in 2003–2004. During the second week of April 2005, the statewide average snowpack peaked at 40 inches of snow water content. This amount of mountain snowpack is 146 percent of normal. These snowpack conditions are in stark contrast to snowpack levels in 2003–2004. During that time, the statewide snow water content peaked at 30 inches in the first week of March. The Northern Sierra Eight Station Index finished the 2004–2005 water year with 57.5 inches of precipitation, which was 115 percent of average.

The water year kicked off October 1, 2004, with a wet start for most of the State. Heavy precipitation fell throughout the month, which resulted in significant snowpack accumulation in the Sierras. The Northern Sierra Eight Station Index registered 7.1 inches of precipitation for the month of October, which was 237 percent of average. Some locations in the San Joaquin River Basin received monthly precipitation totals exceeding 500 percent of average. By November 1, the statewide snowpack stood at 5 inches of snow water content. This amount

represented approximately 16 percent of the statewide historical average for April 1 testing of the State snow water content.

Wet conditions in October were offset by a dry November. Consequently, by the end of November, the snowpack had grown only slightly beyond the value achieved at the beginning of the month. The average snow water content increased statewide from 5 inches on November 1, to 6 inches on December 1. By the end of November, the State snowpack measured 133 percent of normal.

Significant precipitation returned in December, with a major event taking place in Southern California, as the calendar year drew to a close. A series of storms occurred from December 26 to January 5, producing nearly 20 inches of cumulative rainfall at some locations. Most of the heavy precipitation fell from Point Conception south; however, the entire California coast experienced above-average precipitation for the month. By the end of the month, the Northern Sierra Eight Station Index stood at 10.9 inches, 130 percent of average, and precipitation totaling 155 percent of average fell in the San Joaquin River Basin. As a result of these widespread wet conditions, the State snowpack increased to 16 inches of snow water content by the end of the month, 57 percent of the April 1 snow water

content and 159 percent of the year-to-date average.

Precipitation during the month of January varied widely throughout the State. Southern California experienced another extreme storm from Point Conception south to the San Gabriel and San Bernardino mountains. From January 7 to January 11, some locations in this area received 30 inches of cumulative rainfall. In contrast, most of Northern California received slightly below average precipitation for the month. This resulted in a Northern Sierra Eight Station Index value of 8.3 inches, 92 percent of average, while the American River Basin received precipitation at 95 percent of average. Precipitation falling in the San Joaquin River Basin was significantly above average, with several locations recording total values exceeding 200 percent of average. The statewide snowpack remained well above average by the end of the month: 28 inches, 101 percent of April 1 snow water content and 163 percent of normal. Corresponding with the north-to-south precipitation gradient, the Northern Sierra snowpack totaled 142 percent of average, and the Southern Sierra snowpack equaled 200 percent of average.

The wet conditions experienced in Southern California during December and January continued into February, while Northern California experienced precipitation totals falling well below historical monthly averages. Between February 17 and February 23, a very cold storm passed through the State from Point Conception south. The southern coast received 4 to 8 inches of rainfall during this period, while the adjacent mountain regions received 8 to 18 inches. Due to

the cold temperatures associated with this storm, snowfall ranging from 8 to 10 feet was received in the mountains above Los Angeles. Northern California, on the other hand, received well below average precipitation for the month. The Klamath Basin, for example, received precipitation totaling 20 percent of average, while the Northern Sierra Eight Station Index totaled 4.4 inches, which is only 55 percent of average. As an exception to the dry conditions experienced in the northern half of the State, parts of the San Joaquin River Basin continued to receive above average precipitation. The end of February statewide snowpack remained well above average with 32 inches of snow water content, which is 115 percent of the April 1 average and 131 percent of the water year-to-date average.

By contrast, Northern California experienced more significant precipitation during March. The month began with warm and dry conditions, which resulted in some melt of the Sierra snowpack. However, the final two weeks of March ushered in a cold, wet weather pattern, which resulted in considerable precipitation. All of the major water supply basins in Northern California experienced above-average precipitation for the month. The Northern Sierra Eight Station Index was 9.3 inches, which is 135 percent of average. Above-average precipitation was experienced at all locations within the San Joaquin region. By the end of the month, average snow water content stood at 39 inches, which is 138 percent of normal. Snowpack totals in the North Sierra, Central Sierra, and South Sierra were 124 percent, 135 percent, and 158 percent of average, respectively. These increasing percentages reflect the fact that Southern California received more

precipitation throughout the winter months than Northern California.

The month of April brought average precipitation for most of the State. Rainfall along the North Coast was generally above average, with some locations receiving total precipitation exceeding 200 percent. The Northern Sierra Eight Station Index was 3.5 inches, or 90 percent of average. Statewide snowpack peaked at 40 inches on April 9, about a week later than usual. As the month progressed, cool weather prevented major snowmelt at higher elevations, although lower elevations experienced some pronounced melt. By the end of the month, 34 inches of snow water remained statewide.

In May, an atypically large, late-season storm occurred in Northern California. From May 17 through May 19, much of California north of Interstate 80 received 72 hour totals that allowed historical records for the month to be broken at many locations. While storm totals throughout the northern portion of the State were generally between 2 and 5 inches, the Feather River Basin was particularly impacted, with totals between 5 and 10 inches. The Eight Station Index reached a May record of 8.3 inches, or 395 percent of average. Throughout the month, the average statewide snowpack decreased from 34 inches on May 1 to only 13 inches on June 1. The May storm was a major factor in the elevated rate of snowmelt. (See Figure 8-1 for 2004–2005 statewide precipitation percentages by hydrologic region.)

## **Runoff and Storage**

Statewide river runoff totaled 105 percent of average in the 2004–2005 water year. Runoff in the Sacramento River and

San Joaquin River regions was 95 percent and 150 percent of average, respectively. Feather River unimpaired inflow to Lake Oroville was 4.3 maf (90 percent of average) for the water year, compared to 3.8 maf (80 percent of average) the previous year.

The Sacramento River Index for water year 2004–2005 was 18.5 maf (95 percent of average). The Sacramento Valley Water Year Hydrologic Classification (40-30-30 Index) was above normal, based on observed data for water year 2005.

The San Joaquin River system unimpaired runoff from the Stanislaus, Tuolumne, Merced, and San Joaquin rivers was 9.2 maf (155 percent of average). The San Joaquin Valley Water Year Hydrologic Classification (60-20-20 Index) was wet, based on observed data for water year 2005.

The water year began with statewide runoff about 110 percent of average in October. Below normal runoff during November, especially in the Sacramento River region, lowered the statewide runoff to 65 percent of average for the first 2 months of the water year. Season-to-date statewide runoff totals rose to 70 percent of average by the end of December, with statewide storage increasing by 1.4 maf to 19.9 maf.

The variation in precipitation amounts during January was reflected in runoff totals. The Sacramento River region experienced about 65 percent of average January runoff, while the San Joaquin and Tulare Lake regions had flows near 155 percent of average. This pattern, observed in January, continued through February. The Sacramento, San Joaquin,



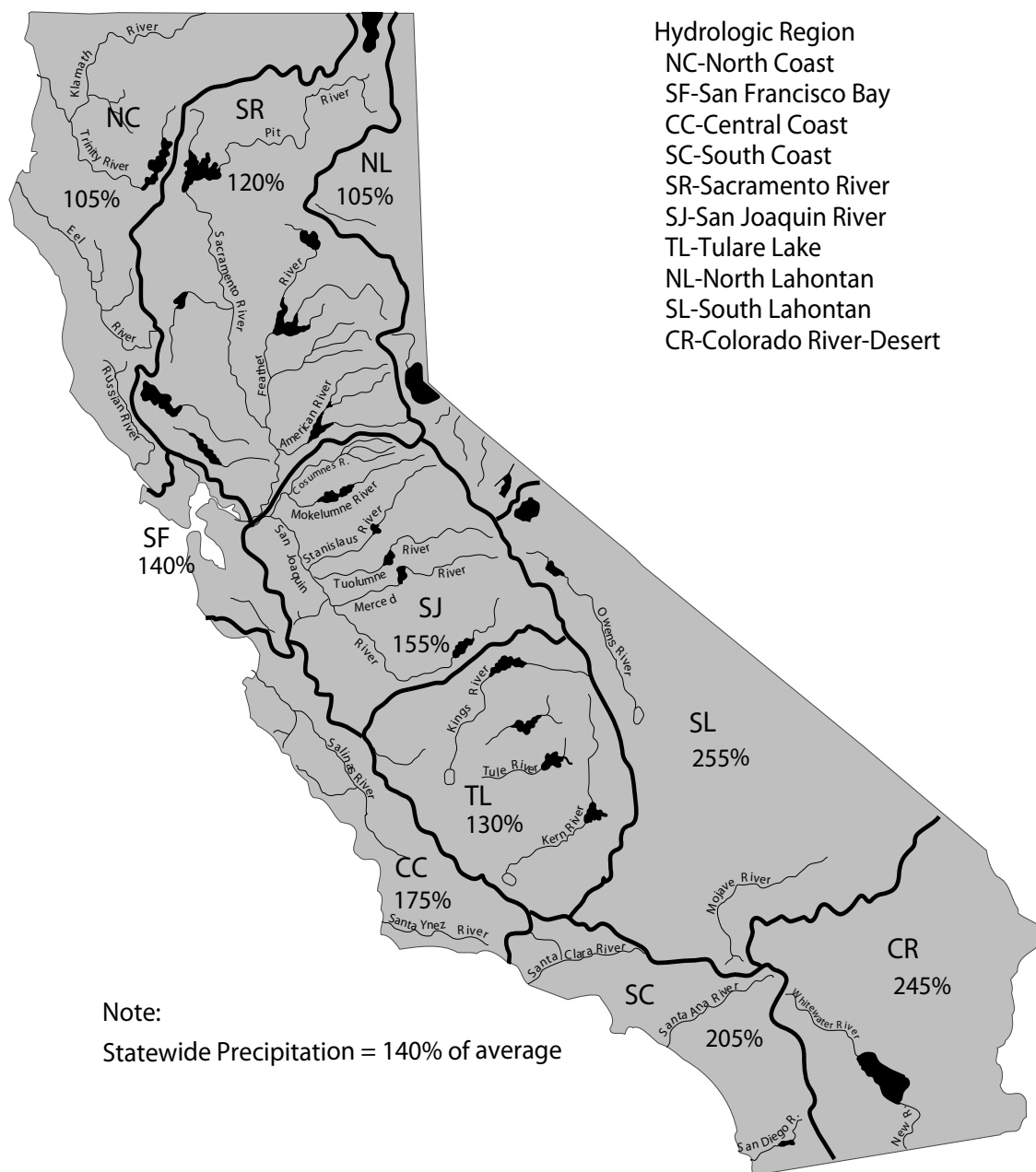


**Figure 8-1. Statewide Precipitation by Hydrologic Region, 2004–2005 Water Year, Percentage Average**

and Tulare Lake regions received average flows of 55 percent, 110 percent, and 90 percent, respectively. The storm track and water supply patterns changed slightly during March. The Sacramento region received near normal runoff for the month, while well above average runoff persisted in the Central and Southern Sierra.

From a water supply perspective, the most closely monitored period is April through July. The month of April concluded with near normal runoff over most of the Sierra. The month of May was very wet, and it ended with statewide runoff volumes at nearly 190 percent of average for the month. During May, the statewide reservoir storage rose from about 105 percent of average to almost 115 percent of average.

By the end of July, the water year runoff volumes were 95 percent, 150 percent, and 145 percent of average for the Sacramento, San Joaquin, and Tulare Lake regions, respectively.

## **Water Year 2005–2006 October–December Water Conditions**

The last three months of calendar year 2005 mark the beginning of the new 2005–2006 water year. By the end of October, the runoff was near 80 percent of average in the Northern Sierra and closer to average in the central and southern regions of the Sierra. November provided lower percentages of average runoff. By the end of November, statewide runoff since October 1 had fallen to near 70 percent of average. December, however, received nearly 200 percent of normal precipitation statewide and, in addition, the statewide

water year-to-date runoff rose to nearly 200 percent of average.

## **SWP Storage**

The SWP operates a complex system of 29 dams and reservoirs to collect and store water for future deliveries. Lake Oroville is the first of two primary SWP conservation facilities. Inflow into Lake Oroville comes from the Feather River.

The San Luis Reservoir is the second primary SWP conservation facility. This Central California facility derives its inflow from pumping at the Gianelli Pumping-Generating Plant. San Luis is an off-stream reservoir. Most of the water is pumped into the reservoir from late fall to early spring. This water is temporarily stored, then released to the California Aqueduct to meet water contractor peaking demands in the summer months. The remaining 27 dams and reservoirs regulate the stored water supply in water delivery patterns that are designed to fit local needs.

## **Water Year 2004–2005 Storage Totals**

At the end of the 2004–2005 water year, water storage in all SWP reservoirs was 4.52 maf or 83 percent of average, compared to 2.99 maf or 76 percent of average at the end of water year 2003–2004. The average end-of-month total storage for the 2004–2005 water year in major SWP reservoirs was 4.19 maf. End-of-water-year storage on September 30, 2005, at Lake Oroville was 2.88 maf, which was about 1.13 maf more than the previous water year. The State's share of San Luis Reservoir storage at the end of the 2004–2005 water year was 925,701 af, as compared to 513,406 af in the previous

water year. The combined storage in southern reservoirs was 620,933 af on September 30, 2005, as compared to 646,828 af at the end of the 2003–2004 water year.

### **Calendar Year 2005 Storage Totals**

The total storage in major SWP reservoirs was about 4.64 maf at the end of calendar year 2005, as compared with 3.07 maf in 2004. The State's share of San Luis Reservoir storage was 1,167,613 af on December 31, 2005, as compared to about 672,181 af at the same time in 2004. The combined storage in the southern reservoirs was 566,207 af on December 31, 2005, as compared to 642,042 af at the same time in 2004.

### **Lake Oroville**

Lake Oroville is the keystone of SWP. It has a maximum water storage capacity of 3,537,580 af. Runoff from Feather River drainage is collected and stored in this reservoir. This water is released to the Sacramento-San Joaquin Delta through Oroville Dam, Thermalito Diversion Dam, and Thermalito Afterbay.

#### ***Water Year 2004–2005 Inflow***

Lake Oroville inflow for the 2004–2005 water year totaled about 3.87 maf, which was 91 percent of the 30-year average (4.24 maf). Maximum daily inflow occurred on May 19, 2005, at 105,055 af. Minimum daily inflow occurred on October 11, 2004, at 1,640 af. The maximum total in 30 years was in water year 1982–1983 at 8,853,572 af. The minimum total in 30 years was in water year 1991–1992 at 1,555,774 af. (See Figures 8-2 and 8-3 for monthly and cumulative inflows, respectively, into Lake Oroville.)

### **Calendar Year 2005 Inflow and Storage**

Total inflow into Lake Oroville during the calendar year was 4,762,959 af. Minimum storage on January 1, 2005, was 1,654,440 af, which was 47 percent of its capacity. Maximum storage on June 15, 2005, was 3,529,207 af. End-of-year Lake Oroville storage was 2,924,684 af. (Figure 8-4 compares end-of-month storage in Lake Oroville Reservoir for the 2004 and 2005 calendar years.)

### **2004–2005 Water Year San Luis Reservoir Operations**

San Luis Reservoir is operated jointly by DWR and the U.S. Bureau of Reclamation (Reclamation), per operating procedures that were adopted in June 1981. San Luis Reservoir has a normal operating capacity of 2,027,840 af. The SWP share of this capacity is 1,062,183 af.

San Luis Reservoir reached its maximum water year total storage on March 25, 2005, at 2,031,395 af, 100 percent of its normal maximum operating capacity. At the beginning of the water year, San Luis Reservoir contained 670,634 af, 33 percent of its capacity. SWP storage share in the beginning of the water year was 522,041 af. On February 28, 2005, the highest end-of-month SWP share of water storage was 1,099,886 af for the 2004–2005 water year (Figure 8-5).

### **2004–2005 Water Year Lake Del Valle Operations**

Lake del Valle, which is situated off the South Bay Aqueduct, functions primarily as a storage facility for later water delivery in Santa Clara and Alameda counties. At the beginning of the water year, Lake del Valle

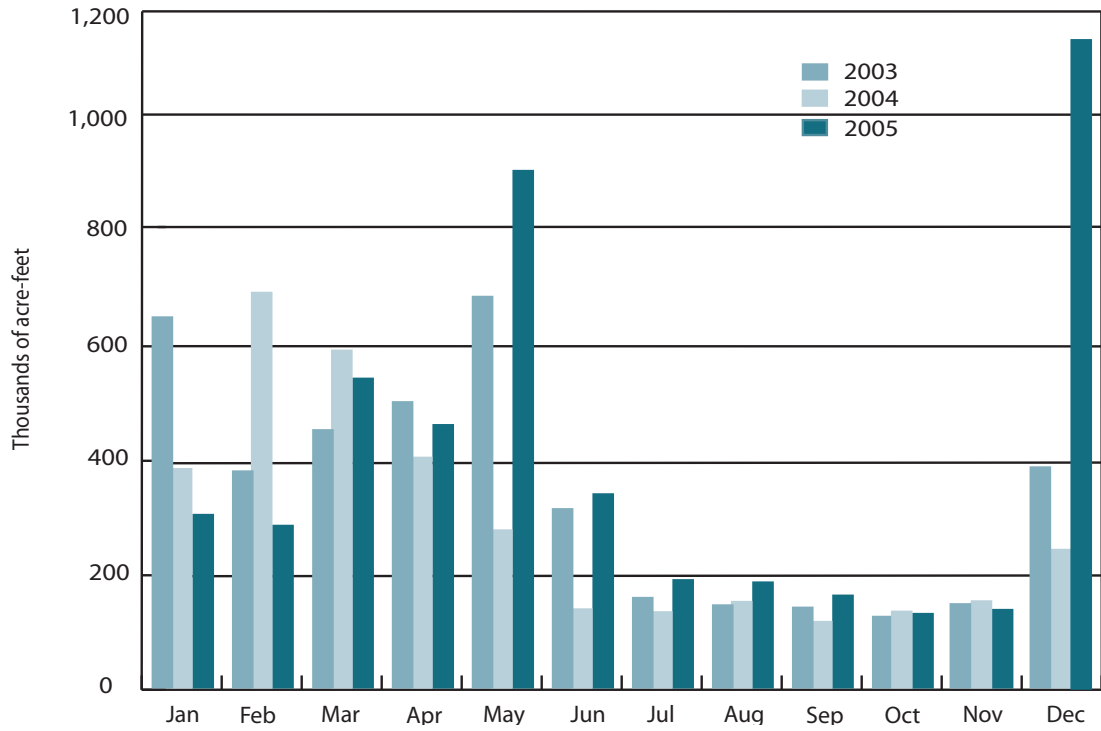


**Figure 8-2. Monthly Lake Oroville Inflow, 2003-2005**

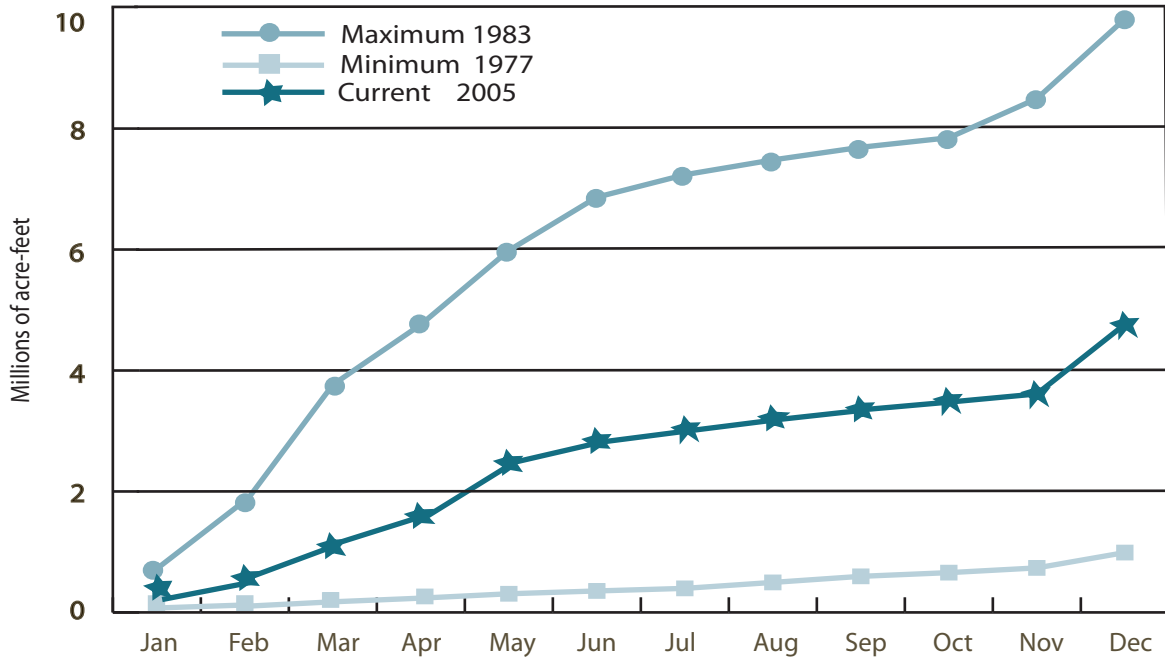


**Figure 8-3. Cumulative Maximum, Minimum, and Current Lake Oroville Inflow**

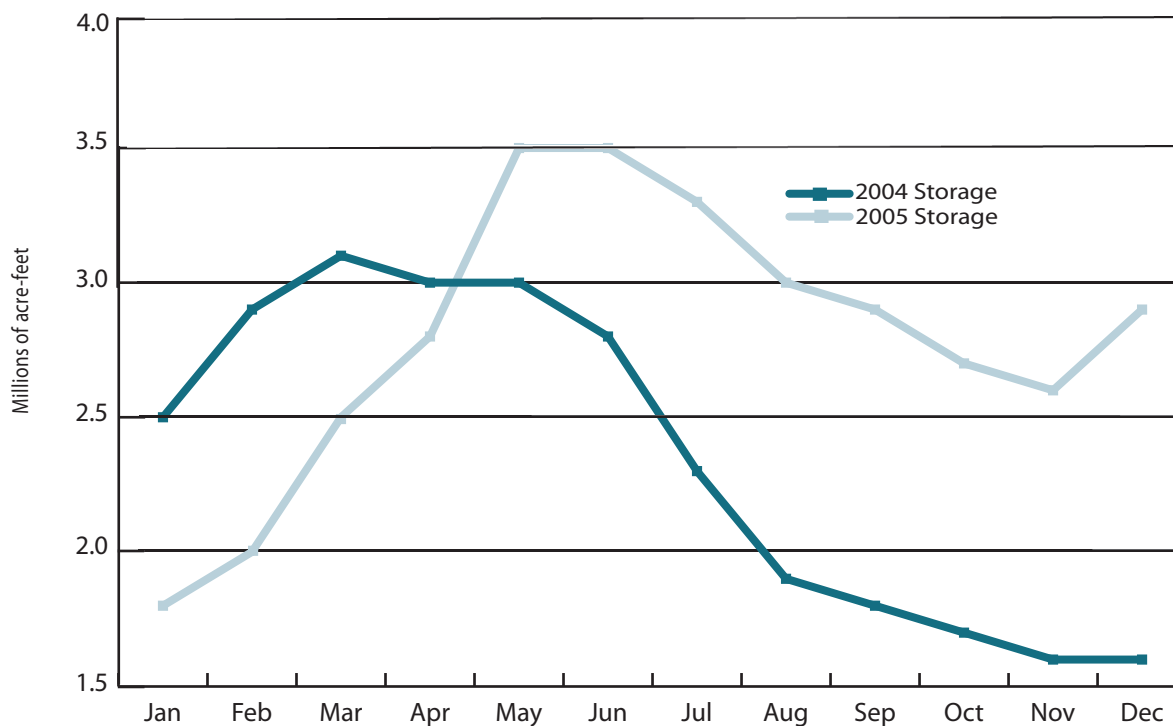


**Figure 8-4. End-of-Month Storage in Lake Oroville, 2004 and 2005 Calendar Years**

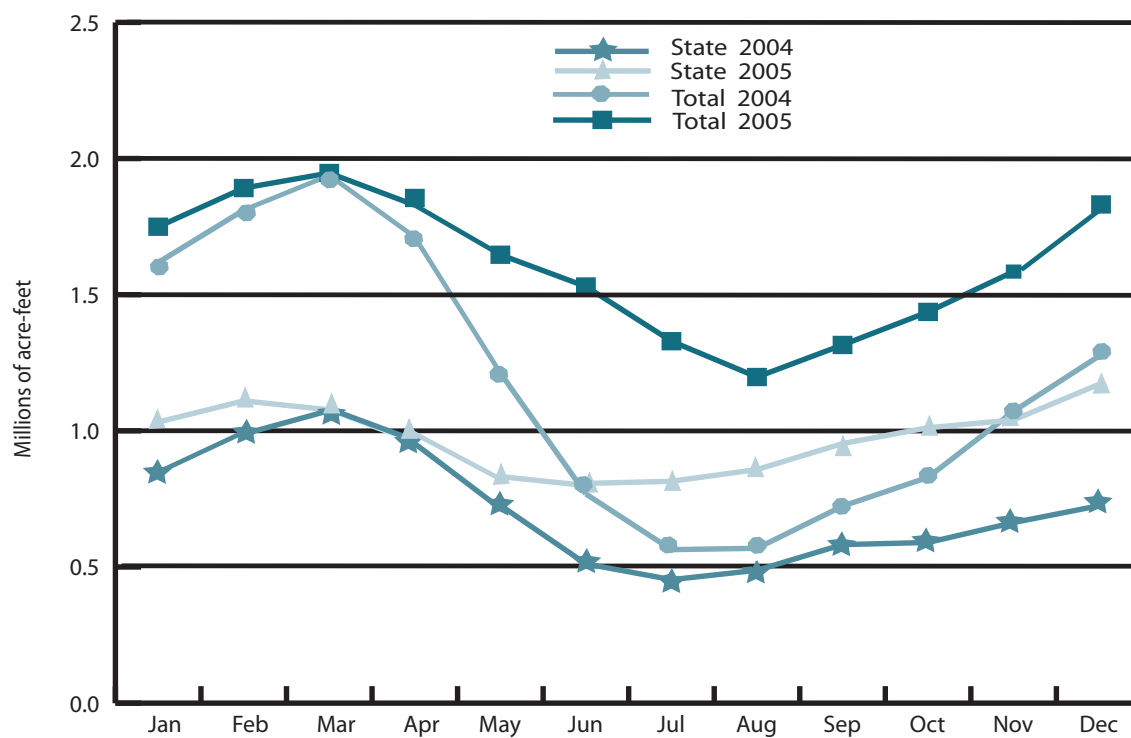


**Figure 8-5. End-of-Month Storage in San Luis Reservoir, 2004 and 2005 Calendar Years**

held 29,770 af, which was about 39 percent of its maximum capacity of 77,106 af. Its highest storage occurred during the 2004–2005 water year on February 21, 2005, with 41,367 af. Its lowest storage occurred on December 26, 2004, with 25,569 af.

By the end of the water year, on September 30, 2005, storage in Lake del Valle was 33,716 af, 44 percent of maximum capacity. Water year releases to Arroyo Valle and South Bay Aqueduct from Lake Del Valle totaled 27,948 af.

### **2004–2005 Water Year Southern Reservoir Operations**

During normal operating conditions, DWR maintains its four southern reservoirs—Pyramid, Castaic, Silverwood, and Perris—at or near full operating capacity to ensure uninterrupted delivery of water to Southern California contractors.

At the beginning of the water year, these reservoirs held 646,828 af, with 93.9 percent of their combined normal maximum operating capacity of 689,021 af. At the end of the water year, the reservoirs held 620,933 af, 90.1 percent of combined normal maximum operating capacity.

### **Diversions from the Delta**

SWP diverts water from the Sacramento-San Joaquin Delta, through Banks and Barker Slough pumping plants, for delivery to SWP contractors' storage facilities. In 2005, the SWP diverted 4,042,013 af at Banks Pumping Plant, including a combined total of 5,091 af of Central Valley Project (CVP) and Cross Valley Canal water, which was wheeled by DWR. In 2005, CVP diverted 2,705,849 af at the Tracy Pumping Plant and 123,477 af

at the Contra Costa Pumping Plant. The combined Delta exports include all of these plants. (Figure 8-6 shows the amounts of water pumped each month in 2005 at the Banks Pumping Plant. Figure 8-7 shows the monthly amounts of water diverted from the Delta in 2005 by the SWP and CVP. CVP diverts water to similar areas from the Delta through Tracy Pumping Plant and Contra Costa Pumping Plant.)

Water is delivered from Banks Pumping Plant to the South Bay area through the South Bay Aqueduct and to the San Joaquin Valley, Central Coastal, and Southern California areas through the California Aqueduct. The SWP diverts water from Barker Slough Pumping Plant to the North Bay Aqueduct. In 2005, a total of 46,424 af were diverted.

Dos Amigos Pumping Plant diverts water from O'Neill Forebay to the California Aqueduct. (Figure 8-8 shows monthly total amounts pumped at Dos Amigos Pumping Plant for the calendar year 2005.) Pumping peaked in July 2005, at 642,712 af.

Maximum daily Delta exports occurred on December 30, 2005, at 25,960 af. Combined SWP and CVP monthly Delta exports in 2005 varied from a low of 203,773 af in May, to a high of 744,362 af in January. In 2005, Delta exports totaled approximately 6.87 million af.

In 2005, water pumped through the Edmonston Pumping Plant for delivery to Southern California totaled 1,561,036 af. (Figure 8-9 shows the amount of water pumped each month in 2005.)

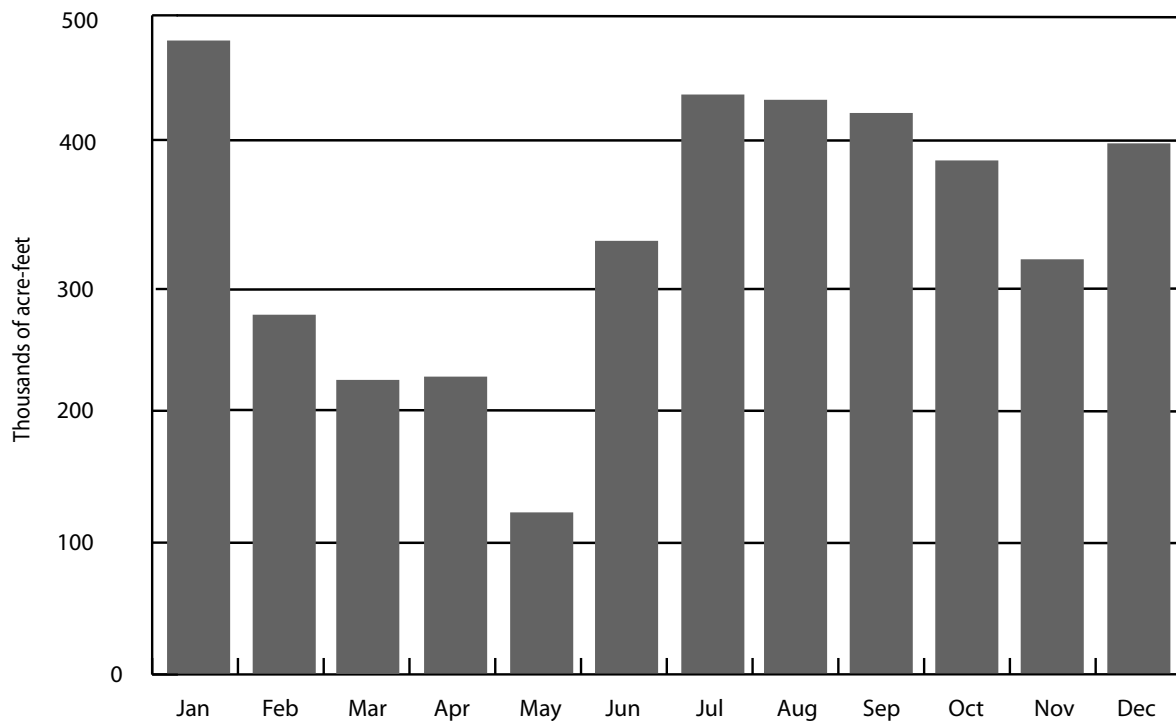


**Figure 8-6. Water Pumped at Banks Pumping Plant, 2005 by Month**

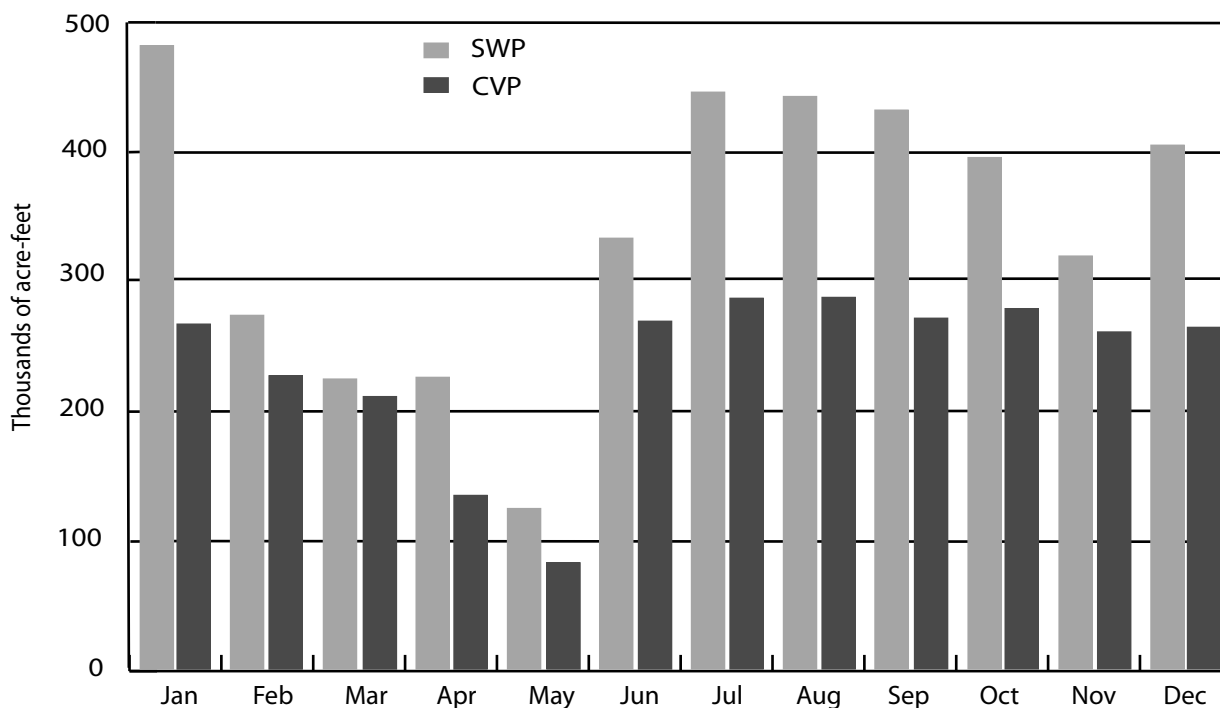


**Figure 8-7. Sacramento-San Joaquin Delta Exports by State Water Project and Central Valley Project, 2005**

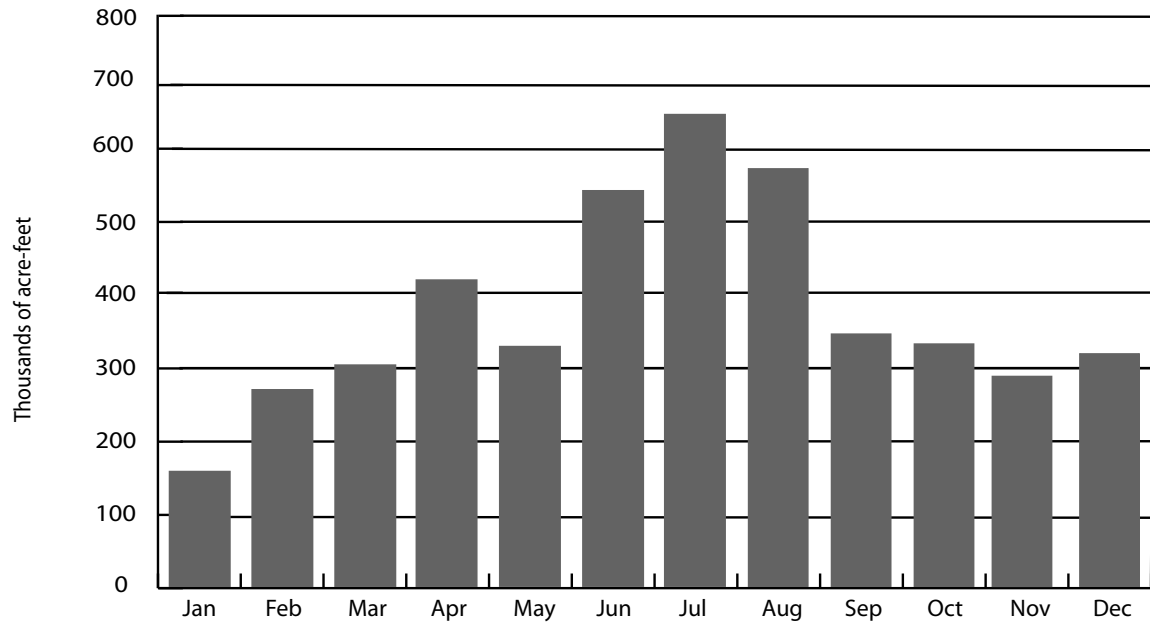


**Figure 8-8. Water Pumped At Dos Amigos Pumping Plant, 2005 by Month**

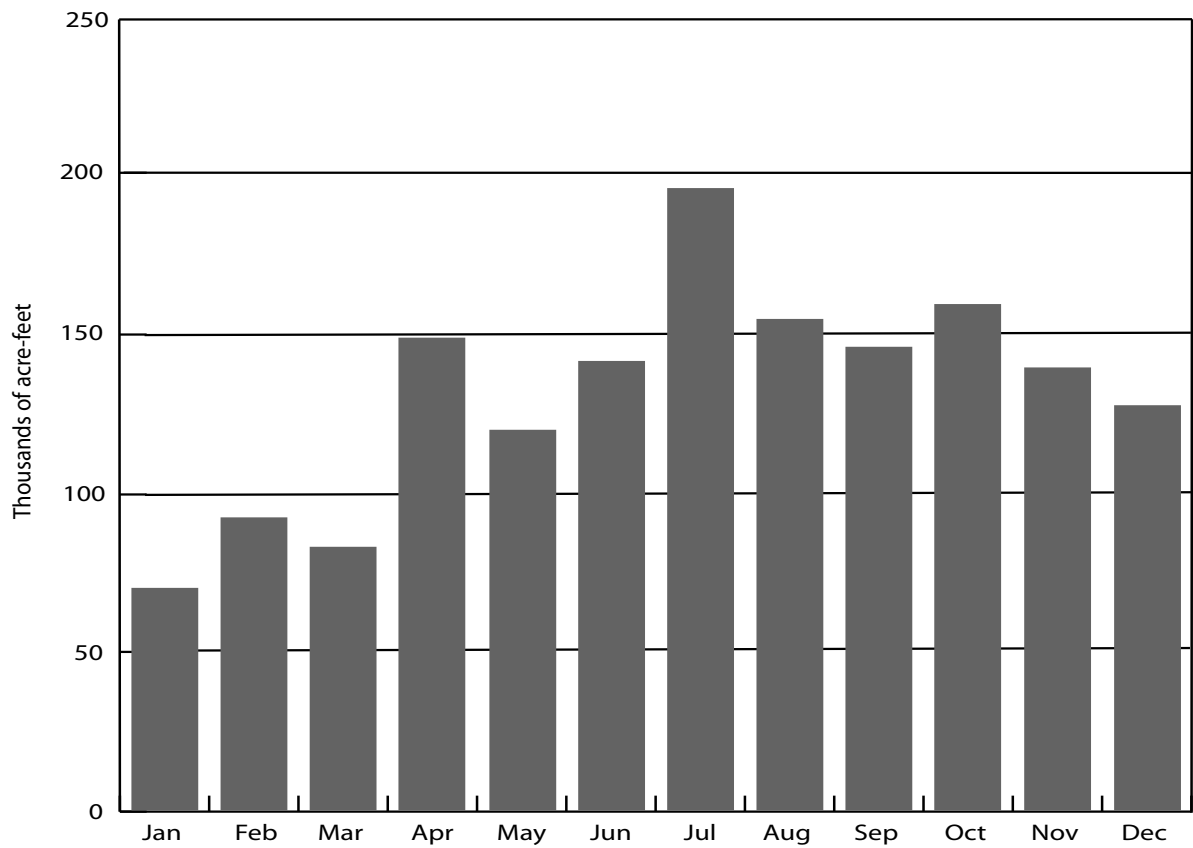


**Figure 8-9. Water Pumped at Edmonston Pumping Plant, 2005 by Month**





## **Chapter 9**

# **Water Contracts and Deliveries**

**C**lifton Court Forebay

## Significant Events in 2005

**D**uring 2005, the Department of Water Resources (DWR) executed seven water conveyance and exchange agreements, 27 Turn-Back Water Pool Program agreements, 14 Article 21 Water Program agreements with SWP contractors.

DWR also delivered water pursuant to seven conveyance and exchange agreements and eight storage agreements pending execution, and six conveyance and exchange agreements and three storage agreements executed prior to 2005.

In 2005, 4,732,633 af of water were conveyed to 27 long-term contractors and 26 other agencies.

The Environmental Water Account curtailed pumping at SWP and CVP by 681 af and 11,400 af, respectively. All EWA debt was paid back to the projects by the end of 2005.

**I**nformation for this chapter was provided by the State Water Project Analysis Office.

The long-term water supply contracts for water service from the State Water Project (SWP) between the Department of Water Resources (DWR) and 29 local agencies are basic to the project's construction and operation. In return for State financing, constructing, operating, and maintenance of facilities, the agencies contractually agreed to repay all associated SWP capital and operating costs.

DWR delivers water to SWP contractors in accordance with their long-term water supply contracts. These contracts set forth Table A amounts, which determine how much water a contractor may request each year from DWR. Table A amounts also are used as a factor for apportioning available supply to each contractor. Contracts can be found at <http://www.swpao.water.ca.gov/wsc/index.cfm>.

"Approved Table A or approved Table A water" represents a portion or all of the annual Table A requested by the contractors and approved for delivery by DWR, based on hydrologic conditions, current reservoir storage, and combined requests from the SWP water contractors. DWR is not always able to deliver the quantity of water requested by contractors. In these cases, and under certain conditions, a lesser amount is allocated and delivered according to the long-term water supply contracts and the process noted above.

Approved Table A amounts may also be referred to in this chapter as "approved amounts" or "approved water".

The Water Supply Contracts are amended as needed. During 2005, two amendments were executed.

DWR also enters into miscellaneous agreements with SWP contractors and

other agencies—which may be amended periodically—to convey SWP and non-SWP water through the California Aqueduct and to approve the construction, operation, and maintenance of turnouts along SWP facilities. During 2005, DWR executed seven water conveyance and exchange agreements, 27 Turn-back Water Pool Program agreements, 14 Article 21 Water Program agreements with SWP contractors. DWR also delivered water pursuant to seven conveyance and exchange agreements and eight storage agreements pending execution, and six conveyance and exchange agreements and three storage agreements executed prior to 2005.

The State Water Project Analysis Office has developed a numbering system for contracts, amendments, and agreements executed by DWR. These numbers, called SWPAO numbers and designated in text as "SWPAO #XXXXX," are located in parentheses after each contract, amendment, or agreement. These numbers can be used as an identifier for anyone who contacts DWR staff for more detailed information on a particular document.

## Amendments to Long-Term SWP Water Supply Contracts

All the original contracts signed by DWR and local agencies have been previously amended to incorporate mutually desired

## Long-Term SWP Water Supply Contracts

The first water supply contract was signed with the Metropolitan Water District of Southern California on November 4, 1960. The contract was negotiated by DWR and Metropolitan according to terms of the contracting principles for water service contracts announced by Governor Edmund G. Brown on January 20, 1960.

The Metropolitan contract became the prototype for all water contracts; by the end of 1967, 31 agencies had contracted for water. In addition, a water supply contract was executed with the City of West Covina in December 1963, but was terminated in August 1965; the city's Table A amount was transferred to Metropolitan through an amendment to the district's long-term contract with DWR. Long-term contracts with Hacienda Water District and Devil's Den Water District were also terminated when those districts transferred their Table A amounts, through contract amendments, to Tulare Lake Basin Water Storage District (1981) and Castaic Lake Water Agency (1992), respectively. Today the SWP has long-term water supply contracts with 29 agencies. Those contracts have been amended periodically to incorporate mutually agreed upon modifications.

All water contracts signed in the 1960s included an estimate of the date water would first be delivered and a schedule of the amount of water the agency could expect to be delivered annually (annual Table A amounts). That amount was designed to increase gradually until the maximum amount of annual Table A was reached. The total combined maximum annual Table A amount for all water contracting agencies was initially 4,230,000 acre-feet, assuming full development of the SWP.

The contracts were initially designed to be valid for 75 years or until all bonds sold as part of the California Water Resources Development Bond Act were repaid, whichever period was longer. As a result of amendments to contracts in the 1990s, the current combined maximum annual Table A amount totals 4,172,786 acre-feet, and the contracts are in effect for the longest of the following periods: (1) the project repayment period, which extends to the year 2035; (2) 75 years from the date of the contract; or (3) the period ending with the latest maturity date of any bond used to finance the construction costs of project facilities.

changes. Most amendments fall under the following five general categories:

- 1) revision of annual Table A amounts in the water supply contracts;
- 2) allocation of costs and benefits for the enlargement or extension of the East Branch and extension of the Coastal Branch of the California Aqueduct;
- 3) purchase of excess capacity in the California Aqueduct;
- 4) provisions to allow contractors, under certain conditions, to carry over undelivered SWP approved Table A

- water from one year for delivery in the next year; and
- 5) implementation of Monterey Agreement principles.

## **2005 Amendments to Long-Term Water Supply Contracts**

The following Water Supply Contracts were amended during 2005.

### ***County of Kings***

DWR executed Amendment No. 17 to the Water Supply Contract between County of Kings and DWR on September 23, 2005. The amendment provided for the permanent transfer of 305 af of SWP Table A water from Tulare Lake Basin Water Storage District to County of Kings, and set forth the conditions of the transfer. The transfer becomes effective January 1, 2006. (SWPAO #05014)

### ***Tulare Lake Basin Water Storage District***

DWR executed Amendment No. 32 to the Water Supply Contract between Tulare and DWR on September 23, 2005. The amendment provided for the permanent transfer of 305 af of Table A water from Tulare to County of Kings, and set forth the conditions of the transfer. The transfer becomes effective January 1, 2006. (SWPAO #05013)

The following long-term Water Supply Contract amendments (part of the 2003 Colorado River Quantification Settlement Agreement) were executed in 2003, and became effective in 2005. The amendments are a result of the 2003 Exchange Agreement that became effective on November 9, 2004, among Coachella Valley Water District, Metropolitan Water District of Southern California, and Desert

Water Agency. The exchange agreement provides for the transfer of 88,100 af of Metropolitan's Table A amounts to Coachella and 11,900 af of Metropolitan's Table A amounts to Desert. The transfers are consistent with the implementation of the 2003 Colorado River Quantification Settlement Agreement.

### ***Coachella Valley Water District***

DWR executed Amendment No. 18 to the Water Supply Contract between Coachella and DWR on October 10, 2003. The amendment provided for the permanent transfer of 88,100 af of Table A amounts from Metropolitan to Coachella and set forth conditions for the transfer. The transfer became effective January 1, 2005. (SWPAO #04009)

### ***Desert Water Agency***

DWR executed Amendment No. 18 to the Water Supply Contract between Desert and DWR on November 3, 2003. The amendment provided for the permanent transfer of 11,900 af of Table A amounts from Metropolitan to Desert and set forth conditions for the transfer. The transfer became effective on January 1, 2005. (SWPAO #04011)

### ***Metropolitan Water District of Southern California***

DWR executed Amendment No. 27 to the Water Supply Contract between Metropolitan and DWR on October 24, 2003. The amendment provided for the permanent transfer of 88,100 af of Table A amounts from Metropolitan to Coachella, and set forth conditions for the transfer. The transfer became effective January 1, 2005. (SWPAO #04008)

DWR executed Amendment No. 28 to the Water Supply Contract between

Metropolitan and DWR on October 24, 2003. The amendment provided for the permanent transfer of 11,900 af of Table A amounts from Metropolitan to Desert, and set forth conditions for the transfer. The transfer became effective January 1, 2005. (SWPAO #04010)

### **Monterey Amendments**

The Monterey Amendments increase the reliability of existing water supplies; provide stronger financial management for the SWP; and increase water management flexibility, providing more tools for local water agencies to maximize use of existing facilities.

The Monterey Amendments include changes in allocation of approved Table A water, the transfer of Table A amounts and land, financial restructuring, and increased operational flexibility. The Monterey Amendments are discussed in detail in Chapter 1, "Summary of Significant Events", of Bulletin 132-95 (available online at <http://www.swpao.water.ca.gov/publications/index.cfm>).

Plumas and Empire remain the only long-term SWP contractors who have not signed the Monterey Amendment.

In accordance with the terms of the May 5, 2003, Monterey Settlement Agreement, the SWP continues to operate pursuant to the Monterey Amendments, while the new Environmental Impact Report (EIR) is being prepared. The draft EIR is expected to be released in 2007. The settlement agreement is discussed in detail in Chapter 9, "Water Contracts and Deliveries," of Bulletin 132-04, (available online at <http://www.swpao.water.ca.gov/publications/index.cfm>.)

## **Miscellaneous Agreements with Long-Term SWP Contractors**

### **2005 Water Conveyance and Exchange Agreements**

During 2005, water conveyance and exchange agreements were executed or pending execution with long-term SWP contractors as described below.

#### ***Dudley Ridge Water District***

A letter agreement dated June 20, 2005 and executed July 5, 2005, between DWR and Dudley Ridge approved the conveyance of Central Valley Project (CVP) Section 215 water to Dudley Ridge from March 1, 2005 through May 31, 2010. The CVP section 215 water will be made available at O'Neill Forebay. Dudley Ridge requested this water to be delivered to Dudley Ridge through SWP facilities pursuant to Article 55 of its long-term Water Supply Contract. During 2005, a total of 576 af of CVP Section 215 water was delivered to Dudley Ridge from Reach 8D of the California Aqueduct. (SWPAO #05005)

A letter agreement, pending execution among DWR, Dudley Ridge, and Kern County Water Agency, will provide for the delivery of up to 12,000 af of Dudley Ridge's 2005 Table A water to Kern for delivery to Berrenda Mesa Water District. In exchange, Kern will return a portion of its Table A water, equal to two-thirds (66.7 per cent) of Dudley Ridge's 2005 Table A water delivery to Kern. All return water is to be delivered to Dudley Ridge by December 31, 2018. During 2005, a total of 4,684 af was delivered to Kern from Reach 31A of the Coastal Branch. (SWPAO #05015)

A letter agreement, pending execution among DWR, Dudley Ridge, and San Gabriel Valley Municipal Water District, will provide for the delivery of a portion of Dudley Ridge's 2005 and 2006 approved SWP water supplies to San Gabriel's service area. In exchange, San Gabriel will return a like amount of its future SWP water supplies to Dudley Ridge by December 31, 2016. During 2005, a total of 3,484 af of Dudley Ridge's approved SWP water was delivered to San Gabriel at Reach 1 of the East Branch Extension, of which 2,988 af were 2005 Table A water, and 496 af were 2004 extended carryover water. (SWPAO #05017)

#### ***Empire West Side Irrigation District***

An agreement executed December 13, 2005, between DWR and Empire, provided for the delivery of unscheduled water (Article 21) to Empire in 2005, at times when SWP water was not needed for fulfilling approved Table A deliveries, or for meeting project operational commitments. A total of 1,799 af of unscheduled water was delivered to Empire in 2005 at Reach 8C. (SWPAO #05002)

#### ***Kern County Water Agency***

A letter agreement pending execution between DWR and Kern, will provide for the delivery of up to 27,000 af of Kern's approved 2005 Table A water to Westlands Water District. In return, Kern will receive a like amount of Kern River water from CVP contractors. This is to facilitate a sale of CVP water from an "eastside" Friant-Kern CVP contractor to Westlands, a "westside" CVP contractor. DWR petitioned the State Water Resources Control Board on May 25, 2005, and received approval on July 20, 2005, for a temporary change of place of use for the delivery of SWP water to Westlands. During 2005, a total of 7,000

af was delivered to Westlands at Reach 4. (SWPAO #05012)

A letter agreement dated August 9, 2005, and executed August 22, 2005, between DWR and Kern, approved the delivery of up to 20,000 af of Kern's 2005 Table A water to the U.S. Bureau of Reclamation (Reclamation) in O'Neill Forebay during 2005. This is to facilitate the delivery of up to 20,000 af of Kern-Tulare Water District's Friant-Kern water to Reclamation by in-lieu exchange, with a portion of Kern's approved Table A water. A portion of the 20,000 af was delivered to Kern National Wildlife Refuge located within Kern's service area. Reclamation was responsible for delivering the remaining portion to wildlife refuges in the San Joaquin Valley via the CVP Delta-Mendota Canal, or CVP side of the joint use facilities of the California Aqueduct. DWR petitioned SWRCB on April 21, 2005, and received approval on August 11, 2005 for such temporary change of place of use. During 2005, a total of 20,000 af was delivered to Reclamation in O'Neill Forebay. (SWPAO #05004)

A letter agreement, pending execution between DWR and Kern, will provide for the delivery of up to 25,000 af of Westlands' 2005 CVP water to Kern for storage in the Semitropic Groundwater Banking and Exchange Program. In exchange, Kern will return a like amount to Westlands in a future year. Westlands' approved CVP water will be made available at O'Neill Forebay for delivery to Kern. During 2005, a total of 11,284 af was delivered to Kern at Reach 10A. (SWPAO #05020)

A letter agreement dated September 14, 2005, and executed October 28, 2005,

between DWR and Kern, approved the delivery of up to 53,300 af of 2004 CVP water to Kern. Kern acquired this water from two CVP/Cross Valley Canal contractors (Kern-Tulare and Rag Gulch Water Districts) and requested the water to be delivered pursuant to Article 55 of Kern's Water Supply Contract. A portion of Kern-Tulare and Rag Gulch Water Districts' service area is within Kern County. During 2005, a total of 7,932 af was delivered to Kern. (SWPAO #04025)

A long-term agreement executed February 23, 2005, among DWR, Kern, and West Kern Water District, approved the introduction of local water from the West Kern Turn-in into Reach 13B of the California Aqueduct. The local water will be delivered concurrently by exchange with SWP water supplies to West Kern Turnout in Reach 12D of the California Aqueduct for use by La Paloma Power Plant. No water was moved under this agreement in 2005. (SWPAO #04015)

### ***Mojave Water Agency***

A letter agreement, pending execution among DWR, Mojave, and Solano County Water Agency will provide for the delivery of up to 2,000 af of Solano's approved 2005 SWP water supplies to Mojave, in exchange for up to 1,000 af of Mojave's future SWP water supplies during a dry year. All return water is to be delivered to Solano by December 31, 2015. Similar agreements were approved by DWR in 1998, 1999, 2000, and 2004. During 2005, a total of 2,000 af of Solano's Table A water was delivered to Mojave at Reach 22B. (SWPAO #05019)

### ***Santa Clara Valley Water District***

A letter agreement, pending execution among DWR, Santa Clara, and Kern, will

provide for the delivery of up to 20,000 af of Santa Clara's 2005 CVP water to Semitropic Water Storage District, a member unit of Kern, in exchange for Kern's Table A water in the future. The water will be delivered to Kern in accordance to Article 55 of Kern's long-term Water Supply Contract. During 2005, a total of 20,000 af of Santa Clara's CVP water was delivered to Semitropic at Reach 10A. (SWPAO #06012)

A letter agreement dated January 31, 2005, and executed March 7, 2005, between DWR and Santa Clara, approved the delivery of up to 3,100 af of Brown's Valley Irrigation District's non-SWP water to Santa Clara in 2004. This water, which is under Brown's Valley pre-1914 water rights, was made available at Banks Pumping Plant and conveyed to Santa Clara at Reach 9 of the South Bay Aqueduct. Santa Clara requested this water be delivered pursuant to Article 55 of its Water Supply Contract. During 2004, a total of 3,100 af of non-SWP water was delivered to Santa Clara. (SWPAO #04026)

### ***Tulare Lake Basin Water Storage District***

A letter agreement dated June 20, 2005, and executed June 29, 2005, between DWR and Tulare, approved the transfer of up to 5,500 af of Tulare's 2005 Table A water to Westlands at Reaches 5, 6, and 7 of the California Aqueduct. The transfer was made on behalf of two land owners, Hansen Ranches (called Vista Verde Farms in Westlands) for up to 3,500 af, and Newton Farms for up to 2,000 af, both of which operate in Tulare's and Westlands' service areas. DWR petitioned the SWRCB on April 19, 2005, and received approval on June 29, 2005, for a temporary change of place of use. During 2005, a total of



3,000 af were delivered to Westlands at Reaches 5 and 7. (SWPAO #05001)

A letter agreement dated June 29, 2005, and executed August 15, 2005, among DWR, Tulare, and Westlands, approved the delivery and re-regulation of up to 500 af of CVP water from Westlands to Tulare in March 2005. In exchange, Tulare would return a like amount of its 2005 approved SWP Table A water to Westlands at Reaches 5, 6, and 7 of the California Aqueduct by December 31, 2005. The point of delivery for the exchange was at O'Neill Forebay. DWR petitioned SWRCB on April 19, 2005, and received approval on June 29, 2005, for a temporary change of place of use for the delivery of return water. During 2005, a total of 277 af was delivered to Tulare at O'Neill Forebay and a total of 277 af of Tulare's 2005 Table A water was returned from O'Neill Forebay to Westlands. (SWPAO #05003)

A letter agreement, pending execution between DWR and Tulare, will provide for the delivery of up to 2,000 af of Tulare's 2005 Table A water to Westlands at Reach 7 of the California Aqueduct, on behalf of Westlake Farms Inc. operates in both contractors' service areas. The water is to be delivered to Westlands for use on lands within the Kings County portion of Westlands' service area. During 2005, a total of 2,000 af was delivered to Westlands at Reach 7. (SWPAO #05011)

### **Water Conveyance and Exchange Agreements Prior to 2005**

During 2005, water was delivered pursuant to agreements with SWP contractors that were executed prior to 2005. These water conveyance and exchange agreements are described below.

### ***Kern County Water Agency***

An agreement executed on June 8, 2000, among DWR, Kern, and Western Hills Water District approved delivery of 8,000 af of pre-1914 Lower Kern River rights water banked in Kern's share of the Pioneer Groundwater Banking Project. A portion of Kern's approved Table A water will be delivered annually to Western Hills from Reach 2A of the California Aqueduct. In exchange, Kern will take a like amount of banked local water from the Pioneer Groundwater Bank. DWR petitioned SWRCB and by an SWRCB order dated April 21, 2000, Western Hills' service area was included within the authorized SWP place of use. During 2005, a total of 1,046 af of Kern's Table A water was delivered to Western Hills at Reach 2A. (SWPAO #01001)

A letter agreement executed October 11, 2002, between DWR and Kern approved the delivery to Kern in 2000, of up to 30,000 af of non-SWP water from four CVP contractors, members of the San Luis and Delta Mendota Water Authority. In exchange, Kern would return a like amount of its approved Table A water to the Water Authority by December 31, 2003. A total of 23,941 af of CVP water was delivered to Kern in 2000. Kern requested an extension of the return period in 2003, and a total of 2,000 af was returned to the Water Authority by the end of 2004, leaving a balance of 21,941 af to be returned to the CVP contractors. The Water Authority, Kern and Santa Clara entered into an exchange agreement dated June 28, 2005, to facilitate the return of the remaining 21,941 af to the Water Authority. Pursuant to the exchange agreement, Santa Clara, a contractor who has both SWP and CVP water supplies, will deliver 21,941 af of its CVP water supplies to the Water Authority. In return, a like amount of Kern's approved

SWP water supplies will be delivered to Santa Clara's account in the Semitropic Water Banking Program for later recovery. During 2005, a total of 21,941 af of Kern's Table A water was delivered to Semitropic from Reach 10A, thereby completing the exchange. (SWPAO #00032)

### ***Mojave Water Agency***

An agreement executed November 13, 1997, among AVEK, Mojave, and DWR, approved a change in point of delivery through 2019 of up to 2,250 af annually of Mojave's approved Table A amount to AVEK's Fairmont Turnout in Reach 19 of the California Aqueduct. Mojave does not have conveyance facilities to provide service to a solar energy generating station located within its service area. AVEK has conveyance capability and has agreed to provide service. During 2005, DWR delivered 973 af of Mojave's 2005 Table A water and 43 af of Mojave's 2004 extended carryover water through AVEK's turnout at Reach 19. (SWPAO #97003)

### ***Napa County Flood Control and Water Conservation District***

A change in point of delivery agreement executed December 26, 2001, among DWR, Napa County Flood Control and Water Conservation District and Solano County Water Agency, approved the delivery of up to 628 af of Napa's annual Table A water to the City of Vallejo Water Treatment Plant at Reach 3A of the North Bay Aqueduct, in Solano's service area. This water is further conveyed to the City of American Canyon, a member agency of Napa. During 2005, a total of 160 af of Napa's Table A water was delivered to Solano from Reach 3A. (SWPAO #00029)

### ***Solano County Water Agency***

A settlement agreement was executed May 19, 2003, among DWR, Solano, and the cities of Fairfield, Vacaville, and Benicia. Concurrently, a conveyance agreement was executed between DWR and Solano. Together, these agreements approved the delivery of up to 31,620 af annually of settlement water to Solano for delivery to the three cities to help meet their current and future municipal and industrial water needs through the North Bay Aqueduct. During 2005, a total of 1,132 af of settlement water was delivered to the three cities through Reach 1 of the North Bay Aqueduct. (SWPAO #03017)

### ***San Bernardino Valley Municipal Water District***

San Bernardino and Metropolitan entered into a coordinated use agreement for conveyance facilities and SWP water supplies on May 14, 2001. DWR responded on February 27, 2002, concurring with the agreement and acknowledging the coordinated use of local facilities currently existing within San Bernardino's jurisdictional boundaries. This coordinated use involves delivery of San Bernardino's SWP water to Metropolitan's facilities within San Bernardino's service area, as permitted under Article 10 of the Water Supply Contract. During 2005, a total of 20,000 af of San Bernardino's approved Table A water was delivered to Metropolitan, of which 15,834 af was delivered to Reach 26A and 4,166 af was delivered to Reach 1 of the East Branch Extension. (SWPAO #02035)

### **Turnout Agreements**

#### ***Antelope Valley–East Kern Water Agency.***

An agreement dated March 28, 2000, between DWR and Antelope Valley–

East Kern Water Agency, allowed the construction, operation, and maintenance of the Rancho Vista Turnout at Milepost 339.68, Reach 20B of the California Aqueduct. The turnout has a design capacity of 5 cfs. Construction was completed in March 2000, but was not formally accepted in 2005.

### ***New Point of Delivery for Ventura County Watershed Protection District***

United Water Conservation District (United) currently contracts for 5,000 af per year of SWP water from Ventura County Watershed Protection District. Of the 5,000 af, 1,850 af are allocated to the Port Hueneme Water Agency and delivered through Castaic Lake. In February 2002, United released an Initial Study and Negative Declaration for the delivery of its SWP water from Pyramid Lake via Piru Creek. The proposal to deliver Ventura's SWP water for United via Piru Creek was included as an objective in the EIR for the revised operations guidelines for Pyramid Lake. The new guidelines, consistent with the final EIR, allow for the delivery of up to 3,150 af of SWP water to United between November 1 and the end of February each year.

## **Agreements and Activities Related to the Monterey Amendments**

### ***Turn-Back Water Pool Program***

Pursuant to Article 56(d) of the Monterey Amendments, the tenth year of the Turn-Back Water Pool Program was initiated through Notice to State Water Project Contractors No. 05-04, dated February 2, 2005. All SWP contractors who signed Monterey Amendments were permitted to participate in the program. The program allowed SWP contractors to offer a portion of their approved 2005 Table A water

for sale in a Turn-back pool for use by interested SWP contractors. Based on Table A supply and demand, the Turn-back water was allocated among the selling and purchasing contractors. In 2005, 38,275 af of water were purchased under the Turn-Back Water Pool Program.

Transactions for Pool A and Pool B of the Turn-Back Water Pool Program occurred in February and March 2005, respectively. In 2005, the program was extended to June 1 to allow for changes in the percentage of Table A allocations between April 1 and June 1. Only SWP contractors who were already committed to purchase water through Pool B were allowed to continue with the program until June. Turn-back water sold for \$12.24 per acre-foot—50 percent of the Delta Water Rate—through Pool A, and for \$6.12 per acre-foot—25 percent of the Delta Water Rate—through Pool B. All money collected through the Turn-Back Water Pool Program was paid to the selling contractors. The 2005 Turn-Back Water Pool Program closed on June 1, 2005. Notices to State Water Project Contractors describing the Turn-Back Water Pool Program are available online at <http://www.swpao.water.ca.gov/notices/index.cfm>.

Table 9-1 lists contractors who participated in Pool A and Pool B of the Turn-Back Water Pool Program.

### ***Storage of Water Outside Service Area***

Pursuant to Article 56 of the Monterey Amendments, seven SWP contractors have agreements with DWR to deliver or store SWP water outside their service area for later use within their service area. The following agreements include provisions concerning the conveyance and points of delivery of such water.

**Table 9-1. 2005 Turn-Back Water Pool Program (Acre-feet)**

| Contractor        | Sold          | Purchased     |
|-------------------|---------------|---------------|
| <b>Pool A</b>     |               |               |
| City of Yuba City | 2,160         |               |
| Littlerock        | 880           |               |
| Ventura County    | 9,000         |               |
| Alameda County    |               | 144           |
| Coachella         |               | 414           |
| Desert            |               | 171           |
| Dudley Ridge      |               | 196           |
| Kern              |               | 3,412         |
| Kings             |               | 31            |
| Metropolitan      |               | 6,530         |
| Oak Flat          |               | 19            |
| San Geronio       |               | 22            |
| Santa Barbara     |               | 155           |
| Santa Clara       |               | 342           |
| Tulare            |               | 329           |
| Zone 7            |               | 275           |
| <b>Total</b>      | <b>12,040</b> | <b>12,040</b> |
| <b>Pool B</b>     |               |               |
| City of Yuba City | 3,480         |               |
| San Gabriel       | 15,420        |               |
| Ventura           | 7,335         |               |
| Alameda County    |               | 799           |
| Coachella         |               | 2,302         |
| Desert            |               | 951           |
| Dudley Ridge      |               | 1,090         |
| Kern              |               | 18,985        |
| Kings             |               | 171           |
| Oak Flat          |               | 108           |
| Tulare            |               | 1,829         |
| <b>Total</b>      | <b>26,235</b> | <b>26,235</b> |

**Alameda County Flood Control and Water Conservation District, Zone 7.** A long-term change in point of delivery agreement pending execution, among DWR, Alameda-Zone 7, and Kern, will provide for the delivery of a portion of Alameda-Zone 7's approved 2004 through 2020 SWP water supplies, for storage in Semitropic, and for the return of such water by future

exchange of a like amount of Kern's Table A water, in accordance with the Alameda-Zone 7 and Semitropic Water Banking and Exchange Program Agreement. All return water is to be delivered to Alameda-Zone 7 by December 31, 2035. During 2005, DWR delivered a total of 5,740 af of Alameda-Zone 7's 2004 extended carryover water to Semitropic. (SWPAO #04017)

**Alameda County Water District.** A change in point of delivery agreement pending execution, among DWR, Alameda, and Kern, will provide for the delivery of a portion of Alameda's 2005 approved SWP water supplies for storage in and later recovery from Semitropic, in accordance with the Alameda County and Semitropic Water Banking and Exchange Program Agreement. During 2005, DWR delivered 25,700 af of Alameda's 2005 Table A water and 4,600 af of Alameda's 2004 extended carryover water to Semitropic. (SWPAO #07005)

**Castaic Lake Water Agency.** A long-term change in point of delivery agreement, pending execution, among DWR, Castaic, and Kern, will provide for the delivery of a portion of Castaic's approved 2005 and future SWP water supplies for storage in and later recovery from the groundwater basin underlying Rosedale-Rio Bravo Water Storage District, a member unit of Kern. This is in accordance with the Castaic and Rosedale-Rio Bravo Water Banking and Exchange Program Agreement. During 2005, DWR delivered 20,000 af of Castaic's approved 2005 Table A water to Reach 12E for subsequent delivery to Rosedale-Rio. (SWPAO #05016)

**County of Kings.** A change in point of delivery agreement, executed March 24, 2004, among DWR, Kings, and Westlands,

provides for the delivery of up to 5,000 af of County of Kings' Table A water through Westlands' turnouts at Reach 6 and Reach 7. Water will be conveyed through Westlands and into Kings County for use at LeMoore Naval Air Station. The agreement became effective January 1, 2004, and remains in effect until December 31, 2035. During 2005, DWR delivered a total of 2,439 af of Kings' Table A water to Westlands at Reach 6. (SWPAO #04005)

A change in point of delivery agreement, pending execution, among DWR, County of Kings, and Westlands, will provide for the delivery of a portion of Kings' approved 2005 and 2006 SWP water supplies through Westlands' turnouts at Reaches 6 and 7 of the California Aqueduct. County of Kings requested the SWP water supplies be delivered to Westlands' agricultural lands within King's county. During 2005, DWR delivered a total of 170 af of County of Kings' 2005 Table A water and 11,248 af of Article 21 water to Reaches 6 and 7. (SWPAO #05026)

A long-term agreement, pending execution, among DWR, County of Kings, Tulare, and Westlands, will provide for a change in point of delivery of up to 200 af of Kings annual approved Table A water and other SWP water supplies to Westlands' turnouts at Reaches 6 and 7 of the California Aqueduct. The water is conveyed to GWF Energy, LLP, for use within Kings' service area; however, GWF Energy relies on CVP water supplies before SWP water supplies. During 2005, one af was delivered to Reach 6. (SWPAO #02031)

**Dudley Ridge Water District.** A change in point of delivery agreement, pending execution, among DWR, Dudley Ridge,

and Kern, will provide for the delivery of a portion of Dudley Ridge's approved SWP water supplies for storage in and later recovery from the Kern Water Bank (KWB). During 2005, DWR delivered a total of 15,694 af of Dudley Ridge's approved SWP water supplies for storage in KWB, of which 2,500 af were 2005 Table A water, 48 af were 2004 extended carryover water, and 13,146 af were Article 21 water. (SWPAO #07001)

**Metropolitan Water District of Southern California.** A long-term change in point of delivery agreement executed August 30, 2004, among DWR, Metropolitan, and Kern, approved the delivery of a portion of Metropolitan's approved SWP supplies for storage in and later recovery from the groundwater basin underlying Kern Delta Water District, a member unit of Kern, in accordance with the Metropolitan and Kern Delta Water Management Program Agreement. During 2005, a total of 15,576 af of Metropolitan's Table A water was delivered to Reaches 12E and 13B. (SWPAO #03019)

A change in point of delivery agreement pending execution, among DWR, Metropolitan, and Mojave, will provide for the delivery of up to 75,000 af of Metropolitan's 2003, 2004, and 2005 approved SWP water supplies for storage in the Mojave River Basin within Mojave, in accordance with the Metropolitan and Mojave Water Banking Demonstration Agreement. The water is to be returned to Metropolitan, by exchange of Mojave's Table A water, by January 15, 2010. During 2005, DWR delivered a total of 20,000 af of Metropolitan's 2005 Table A water to Mojave at Reaches 22B and 24. (SWPAO #03057)

A long-term agreement, executed on August 21, 1995, among DWR, Metropolitan, and Kern, approved the annual delivery of a portion of Metropolitan's annual approved Table A and other water supplies for storage in and later recovery from Semitropic, in accordance with the Metropolitan and Semitropic Water Banking Program Agreement. The long-term agreement remains in effect until November 4, 2035. During 2005, a total of 31,210 af of Metropolitan's Table A water was delivered to Semitropic from Reach 10A. (SWPAO #95010)

**Santa Clara Valley Water District.** A change in point of delivery agreement, pending execution among DWR, Santa Clara and Kern, will provide for the delivery of a portion of Santa Clara's approved 2005 SWP water supplies for storage in and later recovery from Semitropic, in accordance to the Santa Clara and Semitropic Water Banking and Exchange Program Agreement. During 2005, DWR delivered a total of 47,081 af of Santa Clara's approved SWP water supplies to Semitropic, of which 32,333 af were 2005 Table A water, 11,633 af were 2004 extended carryover water, and 3,115 af were Article 21 water. (SWPAO #05008)

### **Article 21 Water Program**

Pursuant to Monterey Amendments, the Article 21 water replaces unscheduled, surplus, wet weather, and Article 12(d) water. The Article 21 water program allows a contractor to take delivery of water over the approved and scheduled Table A amounts for the current year. Article 21 water is available for delivery on a short-term basis as determined by DWR when water is still available after operational requirements for SWP

water deliveries, water quality, and Delta requirements are met.

The conditions for the Article 21 Water Program for 2005 were described in the January 12, 2005, Notice to State Water Project Contractors No. 05-01. Thirteen participants signed the notice, which indicated their acceptance of the criteria, procedures, and charges for the program. They collectively received a total of 729,284 af of Article 21 water. (Table 9-2)

During the Article 21 water program period, unscheduled water was also made available to Empire pursuant to its long-term water supply contract. Empire received 1,799 af of unscheduled water in 2005 for agricultural purposes.

**Table 9-2. Article 21 Water Deliveries (Acre-feet)**

| Contractor          | Amount         |
|---------------------|----------------|
| Alameda County WD   | 846            |
| Castaic Lake        | 2,451          |
| Kings               | 11,504         |
| Dudley Ridge        | 28,197         |
| Kern                | 453,078        |
| Napa                | 606            |
| San Bernardino      | 56             |
| San Geronio         | 15             |
| San Luis Obispo     | 245            |
| Santa Clara         | 6,298          |
| Solano              | 10,421         |
| Metropolitan        | 168,300        |
| Tulare              | 47,267         |
| Subtotal            | 729,284        |
| Empire <sup>a</sup> | 1,799          |
| <b>Total</b>        | <b>731,083</b> |

a) Unscheduled agricultural water

## **Flexible Storage Program**

No SWP contractor participated in the Flexible Storage Program in 2005.

## **Extended Carryover Program**

Pursuant to Article 56 of the Monterey Amendments, contractors can elect to store project water outside of their service area for later use within their service area. Qualified contractors can request Table A water carried over for delivery in the following year to the extent that such deliveries do not adversely affect current or future project operations. Factors that influence how much extended carryover water can be delivered include operational constraints of project facilities, filling of SWP conservation storage facilities, flood control releases, and water quality restrictions. If storage requests exceed the available storage capacity, the amount available is allocated among the contractors requesting storage in proportion to their annual Table A water for that year. Fifteen SWP contractors took delivery of 169,171 af of approved 2004 Table A water carried over into 2005, as extended carryover.

## **Dry Year Water Purchase Program**

Due to the wet hydrology of 2005, there was no need for a dry year water purchase program this year.

## **Environmental Water Account**

EWA is a cooperatively managed program intended to provide (1) protection to fish of the Bay-Delta Estuary through environmentally beneficial changes and (2) water supply reliability to SWP and CVP water users through increased flexibility in operations (SWP and CVP). Responsibility for implementing EWA rests with the

NOAA Fisheries, U.S.. Fish and Wildlife Service, and the Department of Fish and Game (management agencies), and Reclamation and DWR (project agencies).

Under EWA, fish protection is achieved by periodically curtailing project water delivery from the Bay-Delta to project water users south of the Delta and replacing it at a later date within the same calendar year. EWA operates on a water year basis, which begins October 1 and ends September 30 of the following year. However, EWA has the entire water year, plus the three remaining months of the calendar year, to replace curtailed water. This necessitates the acquisition of alternative sources of water, which are used to replace the project water supply (i.e., the undelivered water). EWA assets consist of “operational assets”, which are acquired through changes in operations as defined in the August 28, 2000 CALFED ROD; “purchase assets,” which are acquired water through purchases from willing water sellers; “source shifting,” which involves deferral of scheduled delivery of water by willing participants; and other non-water assets including dedicated pumping capacity at Banks Pumping Plant during the summer. EWA is considered operational for any year when these assets are in place and Endangered Species Act commitments are provided by the management agencies.

In 2005, EWA's fifth operational year, exports were periodically curtailed at the SWP and CVP export facilities between December 15, 2004 and June 8, 2005. These actions resulted in an EWA debt of about 328,681 af at the SWP (December—4,163 af; February—33,967 af; April—121,888 af; May—133,997 af; June—34,666 af) and 11,400 af at the CVP in February.

During water year 2005, DWR and Reclamation acquired 171,917 af and 28,568 af, respectively, in operational assets and 154,560 af of purchase assets through contract agreements. All purchase asset acquisitions in 2005 were made by DWR and were covered under the EWA EIS/EIR in compliance with NEPA and CEQA. A source shift was not implemented because there was no risk of a low-point problem at San Luis Reservoir.

In fall 2004, EWA carried a debt of 14,927 af to water year 2005. EWA ended with no debt at the end of December 2005.

### **Purchase Assets**

The following SWP contractors and non-SWP contractors participated in the EWA Program in 2005. The purchase asset water amounts below represent the total amounts of water acquired for EWA from various sources. These amounts have not been adjusted to reflect conveyance losses.

#### ***Kern County Water Agency***

DWR and Kern County Water Agency executed an amendment, on May 20, 2005, to a 2003 agreement for selling previously stored groundwater to EWA and exchanging it for Kern's approved 2005 Table A water. The amendment approved the purchase of 29,712 af of groundwater to be exchanged in June 2005 (SWPAO #04-715). The purchased groundwater consisted of 5,432 af of previously stored Kern River Flood water and 24,280 af of previously stored Table A water (11,584 af stored in 1993; 8,631 af stored in 1995; 2,664 af stored in 1997; 532 af stored in 1998; and 869 af stored in 2000).

A multi-year groundwater purchase agreement was also executed on September 23, 2005, which expires December 31, 2007. In 2005, 60,000 af of water was purchased and exchanged for Kern's approved 2005 Table A water: 30,000 af of water in August and 30,000 af of water in September (SWPAO #05-705). A total of 89,712 af of Kern's groundwater was purchased in 2005. The purchased groundwater consisted of 8,879 af of previously stored Kern River Flood water and 51,121 af of previously stored Table A water (1,064 af stored in 1993, 15,075 af stored in 1995; 3,685 af stored in 1996; 3,802 stored in 1998; and 27,495 af stored in 2000).

**Yuba County Water Agency.** An agreement executed on April 7, 2005, between DWR and Yuba County Water Agency approved the transfer of up to 125,000 af of water from storage in New Bullards Bar Reservoir and groundwater substitution for support of EWA. Due to the wet hydrology of 2005, only 6,044 af of Yuba's water was purchased (SWPAO #04-716).

**Placer County Water Agency.** An agreement executed on October 26, 2004, between DWR and Placer County Water Agency approved the transfer of up to 20,000 af of water. DWR purchased a total of 18,700 af of water from Placer for EWA in 2004. Since EWA was not able to use the Placer water in 2004, EWA applied 15,372 af of Placer's water for lower American River in stream temperature improvement benefits for fisheries in January 2005, and the remaining 3,328 af of Placer water spilled from Folsom Dam during flood control operations in February, 2005 (SWPAO #04-705).



***South Feather Water and Power Agency***  
DWR and South Feather Water and Power Agency executed an agreement on December 15, 2004, for South Feather to transfer up to 10,000 af of water to DWR for EWA. South Feather released a total of 6,200 af of water into Lake Oroville in December 2004 for use by EWA in 2005. This water later spilled out of Lake Oroville in June 2005, resulting in no purchase of water for EWA from South Feather (SWPAO #04-709).

***Santa Clara Valley Water District***  
An amendment to a 2003 agreement was executed on May 4, 2005, among DWR, Santa Clara Valley Water District, and Kern. The amendment facilitated the purchase of up to 10,800 af of water stored in Santa Clara's portion of Semitropic Groundwater Bank that could then be exchanged for Santa Clara's approved 2005 Table A water for support of EWA. Under the amendment, a portion or all of the purchased water could be Santa Clara's CVP water. A total of 8,804 af of Santa Clara's CVP water was purchased and exchanged for Santa Clara's 2005 Table A water for EWA (SWPAO #04-714).

The exchange of CVP water for Table A water was covered under a separate letter agreement dated July 26, 2005 (SWPAO #05-706). In compliance with CEQA, DWR approved an Addendum to an Initial Study and Negative Declaration, State Clearinghouse Number 2003042104, in July 2005.

***Metropolitan Water District of Southern California***

An agreement executed on September 16, 2005, between DWR and Metropolitan Water District of Southern California, approved up to 50,000 af of water for

a wet-dry exchange. EWA receives water from Metropolitan in a wet year in exchange for returning water to Metropolitan in a drier year, where Metropolitan pays half of the returned water costs. Metropolitan delivered to EWA 20,000 af of water in August, 20,000 af of water in September, and 10,000 af of water in October (SWPAO #05-701).

## **Operational Assets**

Project Pumping of excess flows in the Delta was done to reduce EWA Debt. In 2005, DWR pumped at total of 171,917 af of water to reduce EWA debt (February–34,477 af; July–29,649 af; August–28,493 af; September–27,898 af; and December–51,400 af.) Reclamation pumped 28,568 af of water to reduce EWA debt in March. The combined total project pumping to reduce EWA debt was 200,485 af in 2005. EWA had 500 cfs dedicated pumping capacity available at Banks Pumping Plant during July, August, and September. No other operational assets were available to EWA in 2005.

## **Miscellaneous Agreements with Other Agencies**

In addition to negotiating agreements with SWP contractors to provide for specified water deliveries, DWR also entered into several agreements with other agencies for water conveyance, or exchange, between January 1, 2005, and December 31, 2005.

## **Water Conveyance Agreements—CVP Water**

DWR regularly enters into agreements to convey CVP water such as agreements with contractors receiving water from Reclamation through the Cross Valley

Canal, a water conveyance facility that connects with the Aqueduct near Tupman in Kern County. Other agencies or corporations receive CVP water through agreements between DWR and Reclamation, including the U.S. Department of Veterans Affairs, USFWS, and Musco Family Olive Company. Occasionally, DWR also enters into agreements with Reclamation to convey CVP or SWP water from the Delta to O'Neill Forebay through CVP or SWP facilities. Some of these agreements allow Reclamation to make up for curtailed water exports from Tracy Pumping Plant associated with improving conditions for fish in the Delta. Other agreements allow replacing water exports foregone during maintenance and repair of Tracy and Banks Pumping Plants and CVP and SWP conveyance facilities between the Delta and O'Neill Forebay.

### ***Cross Valley Canal***

Eight CVP water contractors use CVC to obtain water from the California Aqueduct either by exchange with other agencies or by direct delivery. The eight water contractors are: County of Fresno, County of Tulare, Hills Valley Irrigation District, Kern-Tulare Water District, Lower Tule River Irrigation District, Pixley Irrigation District, Rag Gulch Water District, and Tri-Valley Water District. These agencies have had water conveyance service by DWR since 1976 through

- long-term 3-party contracts with DWR and Reclamation, executed in 1976, and amendments extending the contracts through February 29, 1996; and
- interim renewal contracts: (1) March 1, 1996, through February 28, 1998; (2) March 1, 1998, through February 28, 2000; (3) March 1, 2000, through

November 30, 2000; (4) December 1, 2000, through February 28, 2001; (5) March 1, 2001, through February 28, 2002; (6) March 1, 2002 through February 28, 2003; and (7) March 1, 2003 through February 29, 2004, and (8) March 1, 2005 through February 28, 2005, and (9) March 1, 2005 through February 28, 2006.

Between January 1, 2005, and December 31, 2005, DWR delivered CVP water to the CVC contractors as follows:

On June 13, 2005, Lower Tule River Irrigation District requested that DWR and Reclamation approve a change in the point of delivery for up to 5,000 af of their 2005 approved CVP water from the CVC turnout in Reach 12E to Reach 3 of the California Aqueduct (O'Neill Forebay) for delivery to Reclamation's Level 4 Refuge Program. Under this agreement, which was executed on November 9, 2005, DWR conveyed 2,469 af of water in October of 2005. (SWPAO #05312)

On June 13, 2005, Pixley Irrigation District requested that DWR and Reclamation approve a change in the point of delivery for up to 5,000 af of their 2005 approved CVP water from the CVC turnout in Reach 12E to Reach 3 of the California Aqueduct (O'Neill Forebay) for delivery to Reclamation's Level 4 Refuge Program. Under this agreement, which was executed on November 9, 2005, DWR conveyed 2,469 af of water in October of 2005. (SWPAO #05313)

### ***Musco Family Olive Company***

A pending agreement among Musco Family Olive Company, Plain View Water District, DWR, and Reclamation provides for the conveyance of up to 800 af of

Plain View's CVP water to Reach 2A of the California Aqueduct for use by Musco Family Olive Company. A total of 569 af was delivered in 2005 under this pending agreement (SWPAO #04300). Construction of a permanent turnout is currently being pursued.

### ***U.S. Department of Veterans Affairs***

A pending letter agreement among the U.S. Department of Veterans Affairs, DWR, and Reclamation, provides for the conveyance of up to 450 af of CVP-approved water to Reach 2B of the California Aqueduct to the U.S. Department of Veterans Affairs' San Joaquin Valley National Cemetery. A total of 52 af was delivered to the National Cemetery in Reach 2B of the California Aqueduct in 2005 under this pending agreement. (SWPAO #02322)

### ***U.S. Fish and Wildlife Service Cooperative Agreement***

Reclamation initiated a cooperative agreement with DWR to deliver CVP water to the Kern National Wildlife Refuge for USFWS. Under the terms of this cooperative agreement, dated September 28, 2004, up to 30,500 af of CVP water would be delivered from Check 21 to the Buena Vista Water Storage District Turnout BV-1B, on Reach 10A of the California Aqueduct, from May 1, 2002, to May 31, 2009. DWR conveyed 22,947 af of CVP water to Kern National Wildlife Refuge in 2005.

## **Water Deliveries**

### **Approved Table A Deliveries**

Each year, by October 1, the SWP long-term water contractors submit initial requests for approved Table A deliveries allocated to contractors for use in the

subsequent calendar year. Initial approved Table A amounts for the coming year are made by DWR in December. They are based on operations studies that assume 90 per cent exceedence of historic water supply (where exceedence refers to the possibility that water supply in the coming year will be exceeded by the historic water supply), current reservoir storage, and total requests by the SWP water contractors. Forecasts for the year are updated as hydrological conditions change. Approved Table A amounts are increased or decreased depending on both actual and projected hydrologic conditions.

On October 1, 2004, SWP long-term contractors submitted initial requests for 2005.

DWR approved deliveries of 1.65 million af on November 30, 2004, resulting in initial approved Table A amounts of 40 percent of most SWP contractor requests. DWR increased the 2005 approved Table A amounts to 2.48 million af, or 60 percent on January 14, 2005. As water conditions improved, approved Table A amounts were increased to 2.89 million af (70 percent) on April 01, 2005, 3.30 million af (80 percent) on April 21, 2005 and 3.30 million af (90 percent) on May 27, 2005.

Notices to State Water Project Contractors informing them of increases or decreases in approved Table A amounts are online at [http:// www.swpao.water.ca.gov/notices/index.cfm](http://www.swpao.water.ca.gov/notices/index.cfm).

### **SWP Deliveries**

The SWP delivers water for a variety of beneficial uses. In addition to delivering approved Table A water to long-term water supply contractors, the SWP

- conveys water to other public agencies through special contracts and agreements;
- provides water for wildlife and recreational uses; and
- stores, releases, and delivers local runoff water from SWP facilities to agencies that hold local water rights.

In 2005, 4,732,633 af of water were conveyed to 27 long-term contractors and 26 other agencies. That amount includes

- 2,828,406 af of approved Table A water;
- 731,083 af of Article 21 water;
- 1,506 af of SWP water for recreation and fish and wildlife; and
- 1,101,429 af of water delivered to satisfy water rights settlement agreements and agreements with SWP contractors for local water supplies.
- 70,209 af of water delivered to satisfy agreements between the SWP and CVP

Figure 9-1, shows amounts of water delivered to various locations during 2005.

Specific information about water deliveries made to long-term contractors and other agencies during 2005 and historical deliveries from 1962 through 2005 are presented in the following three sections, each with a corresponding table, located at the end of the chapter:

- Water Delivered to Long-term Water Supply Contractors in 2005, by Service Area (Table 9-3);
- Water Delivered in 2005, by Month (Table 9-4); and
- Total Amounts of Annual Table A Water

and Water Conveyed, by Type, 1962-2005 (Table 9-5).

### **Water Deliveries to Long-Term SWP Contractors**

Table 9-3 shows amounts of water delivered in 2005. The following information is arranged by column number.

#### ***2005 Approved Table A Water Delivered***

Columns 1 through 6 show a detailed breakdown of approved Table A water delivered for long-term water supply contractors in 2005.

#### ***Turn-Back Pool Water***

Column 4 shows 38,275 af of Turn-Back pool water was delivered to long-term water supply contractors in 2005.

#### ***2004 Carryover Approved Table A Water Delivered During 2005***

Column 6 shows 185,587 af of water was carried over from 2004 for delivery in 2005. For several years, DWR has offered contractors the opportunity to carry over a portion of their approved Table A water for delivery in the current year to be delivered during the next year.

The carryover program was designed to encourage the most effective and beneficial use of water and to avoid obligating the contractors to use or lose the water by December 31 of each year. The SWP contractors' long-term contracts and amendments state the criteria for carrying over approved Table A water from one year to the next.

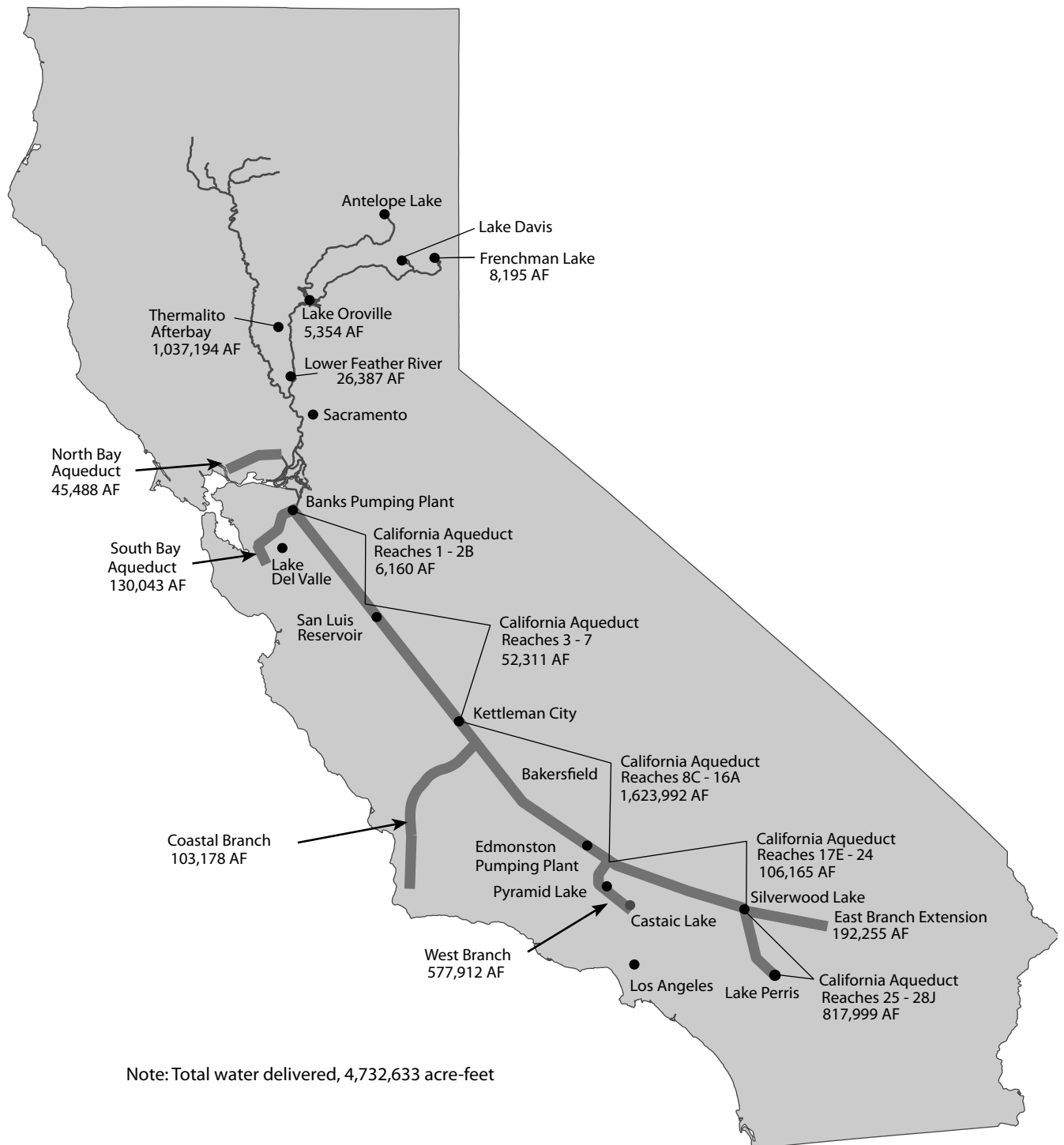


**Figure 9-1. Water Delivered in 2005 and Delivery Locations of Long-Term Water Supply Contractors and Feather River Area Districts with Water Right Agreements with DWR**

***Total Table A Water Delivered***

Column 6 shows all approved Table A water delivered in 2005—a total of 2,828,406 af.

***2005 Article 21 and Unscheduled Water***

Column 8 shows 731,083 af of 2005 Article 21 water delivered to long-term water supply contractors (includes 729,284 af of Article 21 and 1,799 af of unscheduled water to Empire Westside ID). Long-term water supply contractors who have not signed the Monterey Amendment receive unscheduled water.

***Total SWP Water Delivered***

Column 9 shows 3,559,489 af of total SWP water delivered in 2005. This includes total approved Table A water, water bank recoveries, flexible storage withdrawal, and Article 21 and unscheduled water.

***Non-SWP Water Deliveries***

Column 10 includes deliveries of non-SWP water to long-term water contractors. Non-SWP water is generally local, settlement, and permit water that a SWP contractor has a water right to, or water purchased from, exchanged with, or transferred from non-SWP agencies. In 2005, non-SWP water deliveries totaled 67,792 af.

***Total Deliveries***

Column 11 shows total amounts of water delivered to long-term contractors. In 2005, the SWP delivered 3,627,281 af to 27 long-term contractors.

**Water Delivered in 2005 by Month**

During 2005, the SWP provided water service to 53 agencies, including 27 SWP long-term water contractors. Those

agencies and the amounts of water delivered to them by month are listed in Table 9-4, and are summarized below as SWP water and non-SWP water.

***SWP Water***

SWP water as defined in the long-term water supply contracts, includes Article 21 water, carryover approved Table A water, current year approved Table A amounts, flexible storage water, transfer and exchange of approved Table A water, and Turn-back pools A and B. Detailed information concerning those conveyances is found under the Miscellaneous Agreements with Long-Term SWP Contractors section in this chapter.

**Non-SWP Water**

In 2005, DWR used SWP facilities to convey non-SWP water for various agencies according to the terms of water rights and water transfer and exchange agreements. Detailed information concerning those conveyances is found under the Miscellaneous Agreements with Other Agencies section in this chapter.

***Floodwater***

Occasionally, during wet years, DWR accepts floodwater from the Kern River into the California Aqueduct through the Kern River-California Aqueduct Intertie under an agreement entitled Agreement among the State of California, Kern County Water Agency, and the Kern River Interests for Diversions of Floodwaters through the Kern River-California Aqueduct Intertie, dated November 18, 1975. In 2005, DWR did not accept any floodwater into the California Aqueduct.

### **Water Rights Water**

Water in this category is transported through SWP facilities to long-term SWP contractors and other agencies according to terms of various local water rights agreements. Some water simply passes through SWP transportation facilities; a portion is stored in SWP reservoirs for release later. In 2005, 1,101,429 af of water in this category were delivered to the Feather River, South Bay, North Bay, and Southern California, and are summarized below.

**Feather River Area.** Ten non-SWP agencies in the Feather River area received 1,074,706 af. Those agencies are

- Last Chance Creek Water District, 8,195 af
- Thermalito Irrigation District, 2,355 af
- South Feather Water and Power Agency, formerly Oroville-Wyandotte Irrigation District, 5,354 af
- Western Canal Water District, 283,181 af
- Joint Water Districts Board, 751,128 af
- Oswald Water District, 560 af
- Tudor Mutual Water Company, 3,497 af
- Garden Highway Mutual Water Company, 13,987 af
- Plumas Mutual Water Company, 6,449 af

**North Bay Area.** In the North Bay Area, 3,668 af of Vallejo permit and 1,132 af of water pursuant to the May 19, 2003 Settlement Agreement among DWR, Solano County Water Agency (Solano), and the Cities of Fairfield Vacaville, and Benicia, were delivered.

**South Bay Area.** In the South Bay Area, a total of 21,753 af of local water was delivered to Alameda-Zone 7 and Alameda County. These two South Bay Aqueduct contractors hold water rights to runoff from Lake Del Valle watershed.

**Southern California.** In Southern California, 170 af of local runoff from the Houston Creek watershed were stored and delivered to Crestline under water rights held by DWR on Houston Creek. The authorized place of use is limited to Crestline.

### **Annual Table A Water and Water Delivered Since 1962**

Information about annual Table A water and water conveyed for the past 40 years is contained in Table 9-5. The following discussion of conveyed Table A water is arranged according to column numbers.

#### ***Annual Table A***

Columns 1 through 7 of Table 9-5 show the amount of long-term contractors' annual Table A water by area for years 1962 through 2005 as specified in the Table A schedules of the long-term water supply contracts.

In some instances Table A schedules—projections of each contractor's need for water to 2035—have been amended to meet the needs of individual contractors. The amounts of annual Table A water each contractor may request for years 1962 through 2035 can be found in Table B-4 in Appendix B.

#### ***Water Delivered***

Columns 8 through 16 show water delivered or conveyed, including initial

fill water and operational losses and storage changes.

### ***Approved Table A Water***

Column 8 shows amounts of approved Table A water delivered each year from 1962 through 2005.

### ***Article 21 and Unscheduled Water***

Column 9 shows amounts of Article 21 water, as defined under SWP Deliveries, and unscheduled water delivered from 1962 through 2005.

Article 21 and unscheduled water is water in excess of that required to meet all demands for the year's approved Table A water and water to be stored in SWP reservoirs.

### ***Other Water***

Column 10 includes amounts of water classified as other water delivered in 2005, including non-SWP water conveyed through SWP facilities and regulated delivery of local supply.

In 2005, a total of 96,932 af of other water was delivered.

### ***Feather River Diversions***

Column 11 includes amounts of water from the Feather River delivered according to agreements for water rights water. In 2005, a total of 1,074,706 af in this category was delivered to agencies in the Feather River area.

### ***Recreation Water***

Column 12 shows water conveyed for recreational use or to provide water to improve water quality for fish and wildlife. In 2005, a total of 1,604 af of SWP water was conveyed for this purpose.

### ***Initial Fill Water***

The quantities listed in Column 14 represent the amounts used to initially fill the aqueducts and reservoirs south of the Delta to maximum operating capacities. Initial filling began in 1962 with the filling of the South Bay Aqueduct, and was completed in 1979 when Lake Perris reached its maximum operating capacity of 127,000 af. In 1996 and 1997, the Coastal Aqueduct was initially filled.

### ***Operational Losses***

Column 15 includes the total amounts of water lost through evaporation and seepage, net storage changes in reservoirs south of the Delta, and amounts of inflow from local drainage areas, including inflows into San Luis Canal and from the Kern River Intertie.

Negative values are indicated for years when withdrawals and evaporation from reservoirs south of the Delta exceed the amounts of water added to the reservoirs.



**Table 9-3. Water Delivered to Long-Term Contractors through 2005 (Acre-Feet)**

| SWP Contractor                | Table A Water Deliveries                                              |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
|-------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------|----------------------------------|---------------------------------|---------------------------------|--------------------------|-------------------------|----------------|------------------|---------------|------------------|
|                               | 2005<br>Table A<br>not Transferred,<br>Exchanged, or<br>Stored<br>(1) | 2005<br>Table A<br>Transferred<br>or<br>Exchanged<br>(2) | 2005<br>Table A<br>Stored<br>(3) | 2005<br>Turnback<br>Pool<br>(4) | Total<br>2005<br>Table A<br>(5) | 2004<br>Carryover<br>(6) | Total<br>Table A<br>(7) |                |                  |               |                  |
| <b>Feather River</b>          |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| County of Butte               | 527                                                                   |                                                          |                                  |                                 | 527                             |                          | 527                     |                | 527              |               | 527              |
| Plumas County FC&WCD          |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| City of Yuba City             | 1,894                                                                 |                                                          |                                  |                                 | 1,894                           |                          | 1,894                   |                | 1,894            |               | 1,894            |
| <b>North Bay</b>              |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| Napa County FC&WCD            | 5,322                                                                 |                                                          |                                  |                                 | 5,322                           | 1,741                    | 7,063                   | 606            | 7,669            |               | 7,669            |
| Solano County WA              | 22,515                                                                | 2,000                                                    |                                  |                                 | 24,515                          | 83                       | 24,598                  | 10,421         | 35,019           | 4,800         | 39,819           |
| <b>South Bay</b>              |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| Alameda County FC&WCD, Zone 7 | 38,388                                                                |                                                          |                                  | 275                             | 38,663                          | 7,849                    | 46,512                  |                | 46,512           | 11,901        | 58,413           |
| Alameda County WD             | 10,769                                                                |                                                          | 25,700                           | 943                             | 37,412                          | 6,341                    | 43,753                  | 846            | 44,599           | 10,852        | 55,451           |
| Santa Clara Valley WD         | 48,339                                                                |                                                          | 32,333                           | 342                             | 81,014                          | 12,133                   | 93,147                  | 6,298          | 99,445           | 20,000        | 119,445          |
| <b>San Joaquin Valley</b>     |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| Castaic Lake WA               | 258                                                                   |                                                          | 20,000                           |                                 | 20,258                          |                          | 20,258                  | 2,451          | 22,709           |               | 22,709           |
| County of Kings               | 8,100                                                                 |                                                          |                                  | 202                             | 8,302                           |                          | 8,302                   | 11,504         | 19,806           |               | 19,806           |
| Dudley Ridge WD               | 41,437                                                                | 7,672                                                    | 2,500                            | 1,286                           | 52,895                          | 821                      | 53,716                  | 28,197         | 81,913           | 576           | 82,489           |
| Empire West Side ID           | 1,448                                                                 |                                                          |                                  |                                 | 1,448                           | 587                      | 2,035                   | 1,799          | 3,834            |               | 3,834            |
| Kern County WA                | 754,786                                                               | 48,941                                                   |                                  | 22,397                          | 826,124                         | 9,851                    | 835,975                 | 453,078        | 1,289,053        | 19,216        | 1,308,269        |
| Oak Flat WD                   | 4,067                                                                 |                                                          |                                  | 127                             | 4,194                           |                          | 4,194                   |                | 4,194            |               | 4,194            |
| Tulare Lake Basin WSD         | 81,327                                                                | 5,277                                                    |                                  | 2,158                           | 88,762                          | 3,973                    | 92,735                  | 47,267         | 140,002          | 277           | 140,279          |
| <b>Central Coastal</b>        |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| San Luis Obispo County FC&WCD | 4,006                                                                 |                                                          |                                  |                                 | 4,006                           |                          | 4,006                   | 245            | 4,251            |               | 4,251            |
| Santa Barbara County FC&WCD   | 22,981                                                                |                                                          |                                  | 155                             | 23,136                          | 208                      | 23,344                  |                | 23,344           |               | 23,344           |
| <b>Southern California</b>    |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| Antelope Valley-East Kern WA  | 57,205                                                                |                                                          |                                  |                                 | 57,205                          | 2,626                    | 59,831                  |                | 59,831           |               | 59,831           |
| Castaic Lake WA               | 34,045                                                                |                                                          |                                  |                                 | 34,045                          | 2,702                    | 36,747                  |                | 36,747           |               | 36,747           |
| Coachella Valley WD           | 26,984                                                                |                                                          |                                  | 2,716                           | 29,700                          | 12,819                   | 42,519                  |                | 42,519           |               | 42,519           |
| Crestline-Lake Arrowhead WA   | 807                                                                   |                                                          |                                  |                                 | 807                             |                          | 807                     |                | 807              | 170           | 977              |
| Desert WA                     | 33,168                                                                |                                                          |                                  | 1,122                           | 34,290                          | 14,799                   | 49,089                  |                | 49,089           |               | 49,089           |
| Littlerock Creek ID           |                                                                       |                                                          |                                  |                                 |                                 |                          |                         |                |                  |               |                  |
| Metropolitan WDSC             | 1,130,397                                                             | 20,000                                                   | 46,786                           | 6,530                           | 1,203,713                       | 106,032                  | 1,309,745               | 168,300        | 1,478,045        |               | 1,478,045        |
| Mojave WA                     | 10,360                                                                |                                                          |                                  |                                 | 10,360                          | 1,201                    | 11,561                  |                | 11,561           |               | 11,561           |
| Palmdale WD                   | 10,174                                                                |                                                          |                                  |                                 | 10,174                          | 1,538                    | 11,712                  |                | 11,712           |               | 11,712           |
| San Bernardino Valley MWD     | 11,211                                                                | 20,000                                                   |                                  |                                 | 31,211                          | 283                      | 31,494                  | 56             | 31,550           |               | 31,550           |
| San Gabriel Valley MWD        | 10,500                                                                |                                                          |                                  |                                 | 10,500                          |                          | 10,500                  |                | 10,500           |               | 10,500           |
| San Geronio Pass WA           | 655                                                                   |                                                          |                                  | 22                              | 677                             |                          | 677                     | 15             | 692              |               | 692              |
| Ventura County FCD            | 1,665                                                                 |                                                          |                                  |                                 | 1,665                           |                          | 1,665                   |                | 1,665            |               | 1,665            |
| <b>Totals</b>                 | <b>2,373,335</b>                                                      | <b>103,890</b>                                           | <b>127,319</b>                   | <b>38,275</b>                   | <b>2,642,819</b>                | <b>185,587</b>           | <b>2,828,406</b>        | <b>731,083</b> | <b>3,559,489</b> | <b>67,792</b> | <b>3,627,281</b> |

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 1 of 10

| Contracting Agency and Type of Service                              | Jan           | Feb       | Mar       | Apr           | May            | June           | July           | Aug            | Sept          | Oct           | Nov            | Dec           | 2005 Deliveries  | 2005 Table A  |
|---------------------------------------------------------------------|---------------|-----------|-----------|---------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|---------------|------------------|---------------|
| <b>FEATHER RIVER AREA</b>                                           |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| City of Yuba City                                                   |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Approved Table A water                                              | 0             | 0         | 0         | 0             | 0              | 0              | 939            | 955            | 0             | 0             | 0              | 0             | 1,894            | 9,600         |
| Pool A water sale*                                                  | 2,160         | 0         | 0         | 0             | 0              | 0              | 0              | 0              | 0             | 0             | 0              | 0             | 2,160            |               |
| Pool B water sale*                                                  | 0             | 3,480     | 0         | 0             | 0              | 0              | 0              | 0              | 0             | 0             | 0              | 0             | 3,480            |               |
| Agency Total ( * excluded water)                                    | 0             | 0         | 0         | 0             | 0              | 0              | 939            | 955            | 0             | 0             | 0              | 0             | 1,894            |               |
| County of Butte                                                     |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Approved Table A water                                              | 83            | 6         | 9         | 119           | 36             | 5              | 20             | 105            | 29            | 4             | 2              | 109           | 527              | 1,200         |
| Agency Total                                                        | 83            | 6         | 9         | 119           | 36             | 5              | 20             | 105            | 29            | 4             | 2              | 109           | 527              |               |
| Plumas County Flood Control and Water Conservation District         |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Approved Table A water                                              | 0             | 0         | 0         | 0             | 0              | 0              | 0              | 0              | 0             | 0             | 0              | 0             | 0                | 0             |
| Recreation/Fish and Wildlife (SWP)                                  |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Recreation/fish and wildlife water                                  | 0             | 0         | 0         | 0             | 1              | 0              | 1              | 1              | 0             | 0             | 0              | 0             | 3                |               |
| Last Chance Creek Water District                                    |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 0             | 1,164          | 1,880          | 2,091          | 2,142          | 603           | 196           | 119            | 0             | 8,195            |               |
| Thermalito Irrigation District                                      |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 91            | 66        | 88        | 126           | 202            | 275            | 405            | 421            | 316           | 219           | 118            | 28            | 2,355            |               |
| South Feather Water & Power Agency                                  |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 78            | 511            | 783            | 924            | 1,050          | 1,010         | 701           | 176            | 121           | 5,354            |               |
| Western Canal Water District                                        |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 1,560         | 0         | 0         | 4,170         | 41,467         | 40,431         | 62,104         | 49,426         | 12,079        | 26,760        | 30,630         | 14,554        | 283,181          |               |
| Joint Water Districts Board                                         |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 45,810        | 0         | 0         | 9,770         | 104,058        | 104,886        | 129,418        | 114,896        | 53,920        | 45,470        | 77,020         | 65,880        | 751,128          |               |
| Oswald WD                                                           |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 1             | 78             | 158            | 246            | 32             | 45            | 0             | 0              | 0             | 560              |               |
| Tudor Mutual Water Company                                          |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 189           | 290            | 953            | 1,115          | 505            | 443           | 2             | 0              | 0             | 3,497            |               |
| Garden Highway Water Company                                        |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 883           | 1,748          | 1,220          | 6,505          | 1,882          | 865           | 884           | 0              | 0             | 13,987           |               |
| Plumas Mutual Water Company                                         |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Regulated delivery of local supply                                  | 0             | 0         | 0         | 0             | 866            | 1,295          | 1,633          | 1,430          | 1,225         | 0             | 0              | 0             | 6,449            |               |
| SWP                                                                 | 83            | 6         | 9         | 119           | 37             | 5              | 960            | 1,061          | 29            | 4             | 2              | 109           | 2,424            |               |
| Non-SWP                                                             | 47,461        | 66        | 88        | 15,217        | 150,384        | 151,881        | 204,441        | 171,784        | 70,506        | 74,232        | 108,063        | 80,583        | 1,074,706        |               |
| <b>Feather River Area Total</b>                                     | <b>47,544</b> | <b>72</b> | <b>97</b> | <b>15,336</b> | <b>150,421</b> | <b>151,886</b> | <b>205,401</b> | <b>172,845</b> | <b>70,535</b> | <b>74,236</b> | <b>108,065</b> | <b>80,692</b> | <b>1,077,130</b> | <b>10,800</b> |
| <b>NORTH BAY AREA</b>                                               |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Napa County Flood Control and Water Conservation District (NCFCWCD) |               |           |           |               |                |                |                |                |               |               |                |               |                  |               |
| Approved Table A water                                              | 0             | 0         | 4         | 236           | 371            | 577            | 628            | 607            | 556           | 409           | 883            | 891           | 5,162            | 22,225        |

**Table 9-4. Total Amounts of Water Delivered in 2005, by Month**

| Contracting Agency and Type of Service                                | Jan          | Feb          | Mar        | Apr          | May          | June         | July         | Aug          | Sept         | Oct          | Nov          | Dec          | 2005 Deliveries | 2005 Table A  |
|-----------------------------------------------------------------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|---------------|
| Approved Table A water delivered from Solano's service area*          | 3            | 2            | 3          | 3            | 4            | 23           | 33           | 18           | 30           | 25           | 3            | 13           | 160             |               |
| Article 21 water                                                      | 0            | 0            | 606        | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 606             |               |
| Article 56C extended carryover                                        | 900          | 841          | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 1,741           |               |
| Vallejo Permit water from Solano                                      | 0            | 0            | 0          | 0            | 0            | 0            | 200          | 200          | 100          | 0            | 0            | 0            | 500             |               |
| Agency Total ( * excluded water)                                      | 900          | 841          | 610        | 236          | 371          | 577          | 828          | 807          | 656          | 409          | 883          | 891          | 8,009           |               |
| Solano County Water Agency                                            |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| Approved Table A water                                                | 0            | 0            | 18         | 73           | 326          | 3,873        | 4,323        | 4,437        | 2,631        | 3,427        | 2,391        | 1,016        | 22,515          | 47,256        |
| Napa's approved Table A water delivered through Solano's service area | 3            | 2            | 3          | 3            | 4            | 23           | 33           | 18           | 30           | 25           | 3            | 13           | 160             |               |
| Article 21 water                                                      | 791          | 403          | 289        | 705          | 1,406        | 0            | 1,162        | 1,846        | 2,644        | 1,175        | 0            | 0            | 10,421          |               |
| Article 56C extended carryover                                        | 47           | 36           | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 83              |               |
| Approved Table A water exchange to Mojave*                            | 0            | 0            | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 2000         | 2,000           |               |
| Settlement water                                                      | 0            | 0            | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 349          | 783          | 0            | 1,132           |               |
| Vallejo Permit water                                                  | 0            | 0            | 0          | 0            | 0            | 502          | 198          | 0            | 1025         | 223          | 686          | 534          | 3,168           |               |
| Vallejo Permit water delivered to Napa*                               | 0            | 0            | 0          | 0            | 0            | 0            | 200          | 200          | 100          | 0            | 0            | 0            | 500             |               |
| Agency Total ( * excluded water)                                      | 841          | 441          | 310        | 781          | 1,736        | 4,398        | 5,716        | 6,301        | 6,330        | 5,199        | 3,863        | 1,563        | 37,479          |               |
|                                                                       |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| SWP                                                                   | 1,741        | 1,282        | 920        | 1,017        | 2,107        | 4,473        | 6,146        | 6,908        | 5,861        | 5,036        | 3,277        | 1,920        | 40,688          |               |
| Non-SWP                                                               | 0            | 0            | 0          | 0            | 0            | 502          | 398          | 200          | 1,125        | 572          | 1,469        | 534          | 4,800           |               |
| <b>North Bay Area Total</b>                                           | <b>1,741</b> | <b>1,282</b> | <b>920</b> | <b>1,017</b> | <b>2,107</b> | <b>4,975</b> | <b>6,544</b> | <b>7,108</b> | <b>6,986</b> | <b>5,608</b> | <b>4,746</b> | <b>2,454</b> | <b>45,488</b>   | <b>69,481</b> |
|                                                                       |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| <b>SOUTH BAY AREA</b>                                                 |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| Alameda County Flood Control and Water Conservation District, Zone 7  |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| Approved Table A water                                                | 0            | 0            | 1,093      | 1,231        | 1,950        | 6,283        | 3385         | 6,208        | 6,260        | 5,307        | 4,087        | 2,584        | 38,388          | 80,619        |
| Article 56C extended carryover                                        | 1,654        | 455          | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 2,109           |               |
| Article 56C extended carryover to Semitropic*                         | 845          | 4,895        | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 5,740           |               |
| Pool A water                                                          | 0            | 0            | 0          | 0            | 0            | 0            | 275          | 0            | 0            | 0            | 0            | 0            | 275             |               |
| Local water                                                           | 186          | 1,144        | 1,006      | 1,389        | 2,059        | 141          | 3,890        | 370          | 176          | 287          | 85           | 168          | 10,901          |               |
| Transfer water from BBID                                              | 0            | 0            | 0          | 0            | 0            | 0            | 0            | 1,000        | 0            | 0            | 0            | 0            | 1,000           |               |
| Agency Total ( * excluded water)                                      | 1,840        | 1,599        | 2,099      | 2,620        | 4,009        | 6,424        | 7,550        | 7,578        | 6,436        | 5,594        | 4,172        | 2,752        | 52,673          |               |
| Alameda County Water District                                         |              |              |            |              |              |              |              |              |              |              |              |              |                 |               |
| Approved Table A water                                                | 0            | 844          | 0          | 0            | 0            | 1,188        | 83           | 690          | 2,273        | 2,400        | 1,724        | 1,567        | 10,769          | 42,000        |
| Approved Table A water to Semitropic*                                 | 0            | 0            | 0          | 0            | 0            | 0            | 10,100       | 15,600       | 0            | 0            | 0            | 0            | 25,700          |               |
| Article 21 water                                                      | 0            | 0            | 0          | 0            | 0            | 846          | 0            | 0            | 0            | 0            | 0            | 0            | 846             |               |
| Article 56C extended carryover                                        | 1,400        | 341          | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 1,741           |               |
| Article 56C extended carryover to Semitropic*                         | 1,952        | 2,648        | 0          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 4,600           |               |
| Local water                                                           | 0            | 0            | 1,341      | 1,503        | 1,831        | 1,372        | 1,936        | 2,248        | 621          | 0            | 0            | 0            | 10,852          |               |

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 3 of 10

| Contracting Agency and Type of Service                   | Jan          | Feb          | Mar          | Apr          | May           | June          | July          | Aug           | Sept          | Oct           | Nov           | Dec          | 2005 Deliveries | 2005 Table A   |
|----------------------------------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|-----------------|----------------|
| Pool A water                                             | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 144           | 0             | 0             | 0             | 0            | 144             |                |
| Pool B water                                             | 0            | 0            | 0            | 0            | 0             | 0             | 799           | 0             | 0             | 0             | 0             | 0            | 799             |                |
| Agency Total ( * excluded water)                         | 1,400        | 1,185        | 1,341        | 1,503        | 1,831         | 3,406         | 2,818         | 3,082         | 2,894         | 2,400         | 1,724         | 1,567        | 25,151          |                |
| Santa Clara Valley Water District                        |              |              |              |              |               |               |               |               |               |               |               |              |                 |                |
| Approved Table A water                                   | 67           | 1,105        | 588          | 4,195        | 6,130         | 7,432         | 6,876         | 3,981         | 3,526         | 3,990         | 7,068         | 3,381        | 48,339          | 100,000        |
| Approved Table A water to Semitropic*                    | 0            | 0            | 0            | 0            | 0             | 0             | 23,041        | 7,792         | 0             | 0             | 0             | 1,500        | 32,333          |                |
| Approved Table A water to EWA*                           | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 8,804         | 0             | 0             | 0             | 0            | 8,804           |                |
| Article 21 water                                         | 0            | 873          | 2,310        | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 3,183           |                |
| Article 21 water to Semitropic*                          | 0            | 0            | 0            | 0            | 764           | 2,351         | 0             | 0             | 0             | 0             | 0             | 0            | 3,115           |                |
| Article 56C extended carryover                           | 500          | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 500             |                |
| Article 56C extended carryover to Semitropic*            | 4,554        | 7,079        | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 11,633          |                |
| CVP water to Semitropic*                                 | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 19,000        | 1,000         | 0            | 20,000          |                |
| Pool A water                                             | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 342           | 0             | 0             | 0            | 342             |                |
| Approved Table A water transfer from KCWA to Semitropic* | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 21,941        | 0             | 0             | 0            | 21,941          |                |
| Agency Total ( * excluded water)                         | 567          | 1,978        | 2,898        | 4,195        | 6,130         | 7,432         | 6,876         | 3,981         | 3,868         | 3,990         | 7,068         | 3,381        | 52,364          |                |
| Recreation/Fish And Wildlife (SWP)                       |              |              |              |              |               |               |               |               |               |               |               |              |                 |                |
| Recreation/fish and Wildlife water, Lake Del Valle       | 5            | 4            | 7            | 8            | 12            | 16            | 20            | 20            | 20            | 18            | 16            | 8            | 154             |                |
| SWP                                                      | 3,626        | 3,622        | 3,998        | 5,434        | 8,092         | 15,765        | 11,438        | 11,043        | 12,421        | 11,715        | 12,895        | 7,540        | 107,589         |                |
| Non-SWP                                                  | 186          | 1,144        | 2,347        | 2,892        | 3,890         | 1,513         | 5,826         | 3,618         | 797           | 287           | 85            | 168          | 22,753          |                |
| <b>South Bay Area Total</b>                              | <b>3,812</b> | <b>4,766</b> | <b>6,345</b> | <b>8,326</b> | <b>11,982</b> | <b>17,278</b> | <b>17,264</b> | <b>14,661</b> | <b>13,218</b> | <b>12,002</b> | <b>12,980</b> | <b>7,708</b> | <b>130,342</b>  | <b>222,619</b> |

**SAN JOAQUIN VALLEY AREA**

## Castaic Lake Water Agency

|                                               |   |     |     |   |   |   |   |   |   |   |        |       |        |  |
|-----------------------------------------------|---|-----|-----|---|---|---|---|---|---|---|--------|-------|--------|--|
| Approved Table A water                        | 0 | 0   | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64     | 194   | 258    |  |
| Approved Table A water to Rosedale Rio Bravo* | 0 | 0   | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,869 | 7,131 | 20,000 |  |
| Article 21 water                              | 0 | 916 | 533 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0      | 1,002 | 2,451  |  |
| Agency Total ( * excluded water)              | 0 | 916 | 533 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64     | 1196  | 2709   |  |

## County of Kings

|                                                 |     |      |     |     |       |       |     |       |     |       |     |       |        |       |
|-------------------------------------------------|-----|------|-----|-----|-------|-------|-----|-------|-----|-------|-----|-------|--------|-------|
| Approved Table A water                          | 0   | 0    | 0   | 0   | 0     | 0     | 278 | 849   | 630 | 1,161 | 502 | 2,070 | 5,490  | 9,000 |
| Approved Table A water to WWD for Kings County* | 0   | 1    | 0   | 0   | 433   | 391   | 378 | 517   | 376 | 236   | 174 | 104   | 2,610  |       |
| Article 21 water                                | 256 | 0    | 0   | 0   | 0     | 0     | 0   | 0     | 0   | 0     | 0   | 0     | 256    |       |
| Article 21 water to WWD for Kings County*       | 319 | 1298 | 150 | 172 | 2,309 | 7,000 | 0   | 0     | 0   | 0     | 0   | 0     | 11,248 |       |
| Pool A water                                    | 0   | 0    | 0   | 0   | 0     | 0     | 0   | 31    | 0   | 0     | 0   | 0     | 31     |       |
| Pool B water                                    | 0   | 0    | 0   | 0   | 0     | 0     | 0   | 171   | 0   | 0     | 0   | 0     | 171    |       |
| Agency Total ( * excluded water)                | 256 | 0    | 0   | 0   | 0     | 0     | 278 | 1,051 | 630 | 1,161 | 502 | 2,070 | 5,948  |       |

## Dudley Ridge Water District

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 4 of 10

| Contracting Agency and Type of Service                                | Jan   | Feb    | Mar     | Apr     | May    | June    | July    | Aug     | Sept   | Oct    | Nov    | Dec    | 2005 Deliveries | 2005 Table A |
|-----------------------------------------------------------------------|-------|--------|---------|---------|--------|---------|---------|---------|--------|--------|--------|--------|-----------------|--------------|
| Approved Table A water                                                | 0     | 0      | 100     | 2,205   | 3,014  | 6,576   | 10,109  | 8,341   | 5,292  | 2,791  | 212    | 2,797  | 41,437          | 57,343       |
| Approved Table A water to Kern Water Bank*                            | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 1,500  | 1,000  | 0      | 2,500           |              |
| Article 21 water                                                      | 1765  | 4,941  | 2811    | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 5,534  | 15,051          |              |
| Article 21 water to Kern Water Bank*                                  | 845   | 2323   | 3377    | 2954    | 649    | 1064    | 0       | 0       | 0      | 0      | 0      | 1934   | 13,146          |              |
| Article 56C extended carryover                                        | 177   | 100    | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 277             |              |
| Article 56C extended carryover to Kern Water Bank*                    | 48    | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 48              |              |
| Approved Table A water exchange to San Gabriel WA*                    | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 1,271  | 1,717  | 2,988           |              |
| Exchange approved Art 56C extended carryover water to San Gabriel WA* | 316   | 180    | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 496             |              |
| Approved Table A water exchange to KCWA*                              | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 4,684  | 0      | 0      | 4,684           |              |
| Pool A water                                                          | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 196     | 0      | 0      | 0      | 0      | 196             |              |
| Pool B water                                                          | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 1,090   | 0      | 0      | 0      | 0      | 1,090           |              |
| Transfer of Bureau water to DRWD from USBR                            | 0     | 0      | 0       | 576     | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 576             |              |
| Agency Total ( * excluded water)                                      | 1,942 | 5,041  | 2,911   | 2,781   | 3,014  | 6,576   | 10,109  | 9,627   | 5,292  | 2,791  | 212    | 8,331  | 58,627          |              |
| Empire West Side Irrigation District                                  |       |        |         |         |        |         |         |         |        |        |        |        |                 |              |
| Approved Table A water                                                | 0     | 0      | 0       | 37      | 0      | 0       | 0       | 0       | 0      | 140    | 214    | 1,057  | 1,448           | 3,000        |
| Article 12E carryover                                                 | 353   | 234    | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 587             |              |
| Article 21 unscheduled water                                          | 0     | 0      | 568     | 1,231   | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 1,799           |              |
| Agency Total                                                          | 353   | 234    | 568     | 1,268   | 0      | 0       | 0       | 0       | 0      | 140    | 214    | 1,057  | 3,834           |              |
| Kern County Water Agency                                              |       |        |         |         |        |         |         |         |        |        |        |        |                 |              |
| Approved Table A water                                                | 0     | 5,931  | 15,961  | 34,192  | 40,474 | 123,770 | 113,387 | 162,910 | 92,113 | 80,049 | 59,177 | 25,776 | 753,740         | 998,730      |
| Approved Table A water for Western Hills                              | 5     | 15     | 14      | 53      | 76     | 131     | 158     | 194     | 121    | 119    | 132    | 28     | 1,046           |              |
| Approved Table A water to EWA*                                        | 0     | 0      | 0       | 0       | 0      | 29,712  | 0       | 30,000  | 30,000 | 0      | 0      | 0      | 89,712          |              |
| Article 21 water                                                      | 29101 | 85,722 | 120,563 | 122,343 | 15,517 | 34,659  | 0       | 0       | 0      | 0      | 0      | 45,173 | 453,078         |              |
| Article 55 carryover from Kern-Tulare WD (to San Luis in Oct 2004)    | 7,932 | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 7,932           |              |
| Article 56C extended carryover                                        | 7045  | 2,806  | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 9,851           |              |
| Exchange Table A to USBR*                                             | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 20,000 | 0      | 0      | 0      | 20,000          |              |
| Exchange water from Westlands                                         | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 10,717 | 567    | 11,284          |              |
| Approved Table A water exchange from DRWD                             | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 4,684  | 0      | 0      | 4,684           |              |
| Pool A water                                                          | 0     | 0      | 0       | 0       | 0      | 0       | 3,412   | 0       | 0      | 0      | 0      | 0      | 3,412           |              |
| Pool B water                                                          | 0     | 0      | 0       | 0       | 0      | 0       | 18,985  | 0       | 0      | 0      | 0      | 0      | 18,985          |              |
| Approved Table A transfer to SCVWD in Semitropic*                     | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 0       | 21,941 | 0      | 0      | 0      | 21,941          |              |
| Transfer Table A to Westlands*                                        | 0     | 0      | 0       | 0       | 0      | 0       | 0       | 7,000   | 0      | 0      | 0      | 0      | 7,000           |              |
| Water Bank Deliveries                                                 |       |        |         |         |        |         |         |         |        |        |        |        |                 |              |
| Article 56C extended carryover from ACFC&WCD to Semitropic            | 845   | 4,895  | 0       | 0       | 0      | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 5,740           |              |
| Approved Table A water from ACWD to Semitropic                        | 0     | 0      | 0       | 0       | 0      | 0       | 10,100  | 15,600  | 0      | 0      | 0      | 0      | 25,700          |              |

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 5 of 10

| Contracting Agency and Type of Service                        | Jan    | Feb     | Mar     | Apr     | May    | June    | July    | Aug     | Sept    | Oct     | Nov    | Dec    | 2005 Deliveries | 2005 Table A |
|---------------------------------------------------------------|--------|---------|---------|---------|--------|---------|---------|---------|---------|---------|--------|--------|-----------------|--------------|
| Article 56C extended carryover from ACWD to Semitropic        | 1952   | 2,648   | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 0      | 0      | 4,600           |              |
| Approved Table A water from SCVWD to Semitropic               | 0      | 0       | 0       | 0       | 0      | 0       | 23,041  | 7,792   | 0       | 0       | 0      | 1,500  | 32,333          |              |
| Article 21 water from SCVWD to Semitropic                     | 0      | 0       | 0       | 0       | 764    | 2,351   | 0       | 0       | 0       | 0       | 0      | 0      | 3,115           |              |
| Article 56C extended carryover from SCVWD to Semitropic       | 4554   | 7,079   | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 0      | 0      | 11,633          |              |
| Conveyance of SCVWD water to Semitropic                       | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 19,000  | 1,000  | 0      | 20,000          |              |
| Transfer of Table A water from KCWA to SCVWD                  | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 21,941  | 0       | 0      | 0      | 21,941          |              |
| Approved Table A water from CLWA to Semitropic                | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 12,869 | 7,131  | 20,000          |              |
| Approved Table A water from DRWD to Kern Water Bank           | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 1,500   | 1,000  | 0      | 2,500           |              |
| Article 21 water from DRWD to Kern Water Bank                 | 845    | 2323    | 3377    | 2954    | 649    | 1064    | 0       | 0       | 0       | 0       | 0      | 1934   | 13,146          |              |
| Article 56C extended carryover from DRWD to Kern Water Bank   | 48     | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 0      | 0      | 48              |              |
| Approved Table A water from MWDSC to Semitropic               | 0      | 0       | 0       | 0       | 25,036 | 0       | 6,174   | 0       | 0       | 0       | 0      | 0      | 31,210          |              |
| Approved Table A water from MWDSC to Arvin Edison             | 0      | 0       | 0       | 0       | 1,138  | 1,324   | 9,808   | 2,538   | 0       | 576     | 0      | 0      | 15,384          |              |
| Approved Table A water from MWDSC Kern Delta                  | 0      | 0       | 0       | 0       | 0      | 0       | 192     | 0       | 0       | 0       | 0      | 0      | 192             |              |
| Water Bank Delivery Subtotal                                  | 8,244  | 16,945  | 3,377   | 2,954   | 27,587 | 4,739   | 49,315  | 25,930  | 21,941  | 21,076  | 14,869 | 10,565 | 207,542         |              |
| Agency Total ( * excluded water)                              | 52,327 | 111,419 | 139,915 | 159,542 | 83,654 | 163,299 | 185,257 | 189,034 | 114,175 | 105,928 | 84,895 | 82,109 | 1,471,554       |              |
| Oak Flat Water District                                       |        |         |         |         |        |         |         |         |         |         |        |        |                 |              |
| Approved Table A water                                        | 0      | 10      | 31      | 156     | 536    | 716     | 867     | 923     | 389     | 302     | 122    | 15     | 4,067           | 5,700        |
| Pool A water                                                  | 0      | 0       | 0       | 0       | 0      | 0       | 19      | 0       | 0       | 0       | 0      | 0      | 19              |              |
| Pool B water                                                  | 0      | 0       | 0       | 0       | 0      | 0       | 108     | 0       | 0       | 0       | 0      | 0      | 108             |              |
| Agency Total                                                  | 0      | 10      | 31      | 156     | 536    | 716     | 994     | 923     | 389     | 302     | 122    | 15     | 4,194           |              |
| Tulare Lake Basin Water Storage District                      |        |         |         |         |        |         |         |         |         |         |        |        |                 |              |
| Approved Table A water                                        | 0      | 0       | 0       | 0       | 377    | 181     | 2,299   | 18,186  | 11,419  | 3,701   | 16,523 | 28,641 | 81,327          | 96,227       |
| Article 21 water                                              | 3646   | 3,564   | 5,817   | 18,706  | 1,111  | 2,837   | 0       | 0       | 0       | 0       | 0      | 11,586 | 47,267          |              |
| Article 12E carryover                                         | 158    | 3,815   | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 0      | 0      | 3,973           |              |
| Exchange Table A water to Westlands Water District*           | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 277     | 0       | 0       | 0      | 0      | 277             |              |
| Exchange water from Westlands Water District                  | 0      | 0       | 177     | 100     | 0      | 0       | 0       | 0       | 0       | 0       | 0      | 0      | 277             |              |
| Pool A water                                                  | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 329     | 0       | 0       | 0      | 0      | 329             |              |
| Pool B water                                                  | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 1,829   | 0       | 0       | 0      | 0      | 1,829           |              |
| Transfer approved Table A water to Westlands Water District * | 0      | 0       | 0       | 0       | 0      | 100     | 2,400   | 1,200   | 750     | 550     | 0      | 0      | 5,000           |              |
| Agency Total ( * excluded water)                              | 3,804  | 7,379   | 5,994   | 18,806  | 1,488  | 3,018   | 2,299   | 20,344  | 11,419  | 3,701   | 16,523 | 40,227 | 135,002         |              |
| Westlands Water District                                      |        |         |         |         |        |         |         |         |         |         |        |        |                 |              |
| Approved Table A water from County of Kings to Kings County   | 0      | 1       | 0       | 0       | 433    | 391     | 378     | 517     | 376     | 236     | 174    | 104    | 2,610           |              |
| Article 21 water from County of Kings to Kings County         | 319    | 1298    | 150     | 172     | 2,309  | 7,000   | 0       | 0       | 0       | 0       | 0      | 0      | 11,248          |              |
| Approved Table A transfer from KCWA                           | 0      | 0       | 0       | 0       | 0      | 0       | 0       | 7,000   | 0       | 0       | 0      | 0      | 7,000           |              |

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 6 of 10

| Contracting Agency and Type of Service                               | Jan           | Feb            | Mar            | Apr            | May           | June           | July           | Aug            | Sept           | Oct            | Nov            | Dec            | 2005 Deliveries  | 2005 Table A     |
|----------------------------------------------------------------------|---------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
| Exchange water to KCWA*                                              | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 0              | 10,717         | 567            | 11,284           |                  |
| Approved Table A water exchange from TLBWSD                          | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 277            | 0              | 0              | 0              | 0              | 277              |                  |
| Exchange water to TLBWSD*                                            | 0             | 0              | 177            | 100            | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 277              |                  |
| Approved Table A water transfer from TLBWSD                          | 0             | 0              | 0              | 0              | 0             | 100            | 2,400          | 1,200          | 750            | 550            | 0              | 0              | 5,000            |                  |
| Agency Total ( * excluded water)                                     | 319           | 1,299          | 150            | 172            | 2,742         | 7,491          | 2,778          | 8,994          | 1,126          | 786            | 174            | 104            | 26,135           |                  |
| Recreation/Fish and Wildlife (SWP)                                   |               |                |                |                |               |                |                |                |                |                |                |                |                  |                  |
| Department of Fish & Game, O'Neill/Lateral 4                         | 71            | 38             | 5              | 44             | 95            | 27             | 40             | 52             | 45             | 44             | 47             | 52             | 560              |                  |
| Parks and Recreation, O'Neill/San Luis/Cattle                        | 1             | 1              | 1              | 1              | 5             | 12             | 10             | 12             | 5              | 1              | 2              | 2              | 53               |                  |
| RF&W Total                                                           | 72            | 39             | 6              | 45             | 100           | 39             | 50             | 64             | 50             | 45             | 49             | 54             | 613              |                  |
| Environmental Water Account Program                                  |               |                |                |                |               |                |                |                |                |                |                |                |                  |                  |
| Approved Table A water from Kern County WD                           | 0             | 0              | 0              | 0              | 0             | 29,712         | 0              | 0              | 0              | 0              | 0              | 0              | 29,712           |                  |
| Approved Table A water from Kern County WD                           | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 30,000         | 30,000         | 0              | 0              | 0              | 60,000           |                  |
| Approved Table A water from MWDSC                                    | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 20,000         | 20,000         | 10,000         | 0              | 0              | 50,000           |                  |
| Approved Table A water from SCVWD                                    | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 8,804          | 0              | 0              | 0              | 0              | 8,804            |                  |
| Yuba County Water Agency                                             | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 4,549          | 1,495          | 0              | 6,044            |                  |
| EWA program Total *                                                  | 0             | 0              | 0              | 0              | 0             | 29,712         | 0              | 58,804         | 50,000         | 14,549         | 1,495          | 0              | 154,560          |                  |
| US Bureau of Reclamation (CVP Water Conveyed)                        |               |                |                |                |               |                |                |                |                |                |                |                |                  |                  |
| Plain View WD/Musco Olive Products, Inc (Annual Contract)            | 46            | 39             | 47             | 47             | 40            | 38             | 48             | 65             | 65             | 77             | 55             | 2              | 569              |                  |
| US Dept of Veterans Affairs, SJV National Cemetery (Annual Contract) | 1             | 1              | 1              | 1              | 5             | 10             | 12             | 9              | 6              | 3              | 2              | 1              | 52               |                  |
| Transfer water to DRWD*                                              | 0             | 0              | 0              | 576            | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 576              |                  |
| Exchange Table A water from KCWA                                     | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 20,000         | 0              | 0              | 0              | 20,000           |                  |
| Kern National Wildlife Refuge                                        | 411           | 0              | 620            | 849            | 506           | 0              | 0              | 1,602          | 5,130          | 5,367          | 5,222          | 3,240          | 22,947           |                  |
| Recreation water                                                     | 0             | 1              | 1              | 1              | 5             | 9              | 7              | 10             | 4              | 1              | 0              | 4              | 43               |                  |
| Fish and wildlife water                                              | 64            | 31             | 5              | 36             | 77            | 22             | 33             | 42             | 37             | 36             | 39             | 160            | 582              |                  |
| USBR Total ( * excluded water)                                       | 522           | 72             | 674            | 934            | 633           | 79             | 100            | 1,728          | 25,242         | 5,484          | 5,318          | 3,407          | 44,193           |                  |
| Cross Valley Canal Contracts                                         |               |                |                |                |               |                |                |                |                |                |                |                |                  |                  |
| Lower Tule River CVP water to the USBR                               | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 2,469          | 0              | 0              | 2,469            |                  |
| Pixley Irrigation District CVP water to the USBR                     | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 2,469          | 0              | 0              | 2,469            |                  |
| CVC Total                                                            | 0             | 0              | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 4,938          | 0              | 0              | 4,938            |                  |
| SWP                                                                  | 51,141        | 126,337        | 149,931        | 182,094        | 91,534        | 181,139        | 201,765        | 230,037        | 153,081        | 95,854         | 91,038         | 134,596        | 1,688,547        |                  |
| Non-SWP                                                              | 8,454         | 72             | 851            | 1,610          | 633           | 79             | 100            | 1,728          | 5,242          | 29,422         | 17,035         | 3,974          | 69,200           |                  |
| <b>San Joaquin Valley Area Total</b>                                 | <b>59,595</b> | <b>126,409</b> | <b>150,782</b> | <b>183,704</b> | <b>92,167</b> | <b>181,218</b> | <b>201,865</b> | <b>231,765</b> | <b>158,323</b> | <b>125,276</b> | <b>108,073</b> | <b>138,570</b> | <b>1,757,747</b> | <b>1,170,000</b> |

**CENTRAL COASTAL AREA**

San Luis Obispo County Flood Control and Water Conservation District

|                        |     |     |     |     |     |     |     |     |     |     |     |     |       |        |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|--------|
| Approved Table A water | 157 | 321 | 347 | 257 | 370 | 402 | 410 | 431 | 423 | 419 | 177 | 292 | 4,006 | 25,000 |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|--------|

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 7 of 10

| Contracting Agency and Type of Service                             | Jan          | Feb          | Mar          | Apr          | May          | June         | July         | Aug          | Sept         | Oct          | Nov          | Dec          | 2005 Deliveries | 2005 Table A  |
|--------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|---------------|
| Article 21 water                                                   | 0            | 0            | 0            | 145          | 42           | 34           | 0            | 0            | 0            | 0            | 0            | 24           | 245             |               |
| Agency Total                                                       | 157          | 321          | 347          | 402          | 412          | 436          | 410          | 431          | 423          | 419          | 177          | 316          | 4,251           |               |
| Santa Barbara County Flood Control and Water Conservation District |              |              |              |              |              |              |              |              |              |              |              |              |                 |               |
| Approved Table A water                                             | 839          | 972          | 1,253        | 1,803        | 2,258        | 2,689        | 3,009        | 2,753        | 2,654        | 2,179        | 999          | 1,573        | 22,981          | 45,486        |
| Carryover 14B                                                      | 208          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 208             |               |
| Pool A water                                                       | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 155          | 0            | 0            | 0            | 0            | 155             |               |
| Agency Total                                                       | 1,047        | 972          | 1,253        | 1,803        | 2,258        | 2,689        | 3,009        | 2,908        | 2,654        | 2,179        | 999          | 1,573        | 23,344          |               |
| SWP                                                                | 1,204        | 1,293        | 1,600        | 2,205        | 2,670        | 3,125        | 3,419        | 3,339        | 3,077        | 2,598        | 1,176        | 1,889        | 27,595          |               |
| Non-SWP                                                            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0               |               |
| <b>Central Coastal Area Total</b>                                  | <b>1,204</b> | <b>1,293</b> | <b>1,600</b> | <b>2,205</b> | <b>2,670</b> | <b>3,125</b> | <b>3,419</b> | <b>3,339</b> | <b>3,077</b> | <b>2,598</b> | <b>1,176</b> | <b>1,889</b> | <b>27,595</b>   | <b>70,486</b> |

**SOUTHERN CALIFORNIA AREA**

## Antelope Valley-East Kern Water Agency

|                                                                         |       |       |       |       |       |       |       |       |       |       |       |       |        |         |
|-------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|
| Approved Table A water                                                  | 0     | 0     | 2,075 | 3,583 | 4,883 | 6,625 | 8,993 | 9,674 | 7,287 | 5,294 | 4,439 | 4,352 | 57,205 | 141,400 |
| Article 12E carryover                                                   | 1,450 | 1,176 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2,626  |         |
| MWA's Approved Table A water delivered through AVEK's service area      | 0     | 0     | 53    | 111   | 118   | 148   | 181   | 136   | 123   | 82    | 0     | 21    | 973    |         |
| MWA's Article 56C carryover water delivered through AVEK's service area | 19    | 24    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 43     |         |
| Agency Total                                                            | 1,469 | 1,200 | 2,128 | 3,694 | 5,001 | 6,773 | 9,174 | 9,810 | 7,410 | 5,376 | 4,439 | 4,373 | 60,847 |         |

## Castaic Lake Water Agency

|                                |       |       |       |       |       |       |       |       |       |       |       |       |        |        |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Approved Table A water         | 0     | 0     | 1,250 | 2,018 | 2,952 | 4,324 | 5,512 | 5,204 | 4,815 | 2,989 | 2,762 | 2,219 | 34,045 | 95,200 |
| Article 56C extended carryover | 1,557 | 1,145 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2,702  |        |
| Agency Total                   | 1,557 | 1,145 | 1,250 | 2,018 | 2,952 | 4,324 | 5,512 | 5,204 | 4,815 | 2,989 | 2,762 | 2,219 | 36,747 |        |

## Coachella Valley Water District

|                                |        |   |       |       |       |       |       |       |       |       |     |   |        |         |
|--------------------------------|--------|---|-------|-------|-------|-------|-------|-------|-------|-------|-----|---|--------|---------|
| Approved Table A water         | 0      | 0 | 3,300 | 3,300 | 3,300 | 3,300 | 3,300 | 3,300 | 3,300 | 3,300 | 584 | 0 | 26,984 | 121,000 |
| Article 12E carryover          | 3,932  | 0 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0   | 0 | 3,932  |         |
| Article 56C extended carryover | 8,887  | 0 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0   | 0 | 8,887  |         |
| Pool A water                   | 0      | 0 | 0     | 0     | 0     | 0     | 414   | 0     | 0     | 0     | 0   | 0 | 414    |         |
| Pool B water                   | 0      | 0 | 0     | 0     | 0     | 0     | 2,302 | 0     | 0     | 0     | 0   | 0 | 2,302  |         |
| Agency Total                   | 12,819 | 0 | 3,300 | 3,300 | 3,300 | 3,300 | 6,016 | 3,300 | 3,300 | 3,300 | 584 | 0 | 42,519 |         |

## Crestline-Lake Arrowhead Water Agency

|                        |     |    |    |    |    |    |     |     |     |    |    |    |     |       |
|------------------------|-----|----|----|----|----|----|-----|-----|-----|----|----|----|-----|-------|
| Approved Table A water | 0   | 0  | 18 | 28 | 73 | 85 | 136 | 146 | 116 | 85 | 75 | 45 | 807 | 5,800 |
| Local water            | 103 | 47 | 20 | 0  | 0  | 0  | 0   | 0   | 0   | 0  | 0  | 0  | 170 |       |
| Agency Total           | 103 | 47 | 38 | 28 | 73 | 85 | 136 | 146 | 116 | 85 | 75 | 45 | 977 |       |

## Desert Water Agency



**Table 9-4. Total Amounts of Water Delivered in 2005, by Month**

Sheet 8 of 10

| Contracting Agency and Type of Service                             | Jan    | Feb    | Mar    | Apr     | May     | June    | July    | Aug     | Sept    | Oct     | Nov     | Dec     | 2005 Deliveries | 2005 Table A |
|--------------------------------------------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|--------------|
| Approved Table A water                                             | 0      | 0      | 3,810  | 3,810   | 3,810   | 3,810   | 3,810   | 3,810   | 3,810   | 3,810   | 2,688   | 0       | 33,168          |              |
| Article 12E carryover                                              | 7,716  | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7,716           |              |
| Article 56C extended carryover                                     | 7,083  | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7,083           |              |
| Pool A water                                                       | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 171     | 0       | 0       | 0       | 0       | 171             |              |
| Pool B water                                                       | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 951     | 0       | 0       | 0       | 0       | 951             |              |
| Agency Total ( * excluded water)                                   | 14,799 | 0      | 3,810  | 3,810   | 3,810   | 3,810   | 3,810   | 4,932   | 3,810   | 3,810   | 2,688   | 0       | 49,089          |              |
| Littlerock Creek Irrigation District                               |        |        |        |         |         |         |         |         |         |         |         |         |                 |              |
| Approved Table A water                                             | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0               |              |
| Pool A water sale*                                                 | 880    | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 880             |              |
| Agency Total ( * excluded water)                                   | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0               | 2,300        |
| Metropolitan Water District of Southern California                 |        |        |        |         |         |         |         |         |         |         |         |         |                 |              |
| Approved Table A water                                             | 0      | 0      | 0      | 101,572 | 104,118 | 120,176 | 135,913 | 143,652 | 144,053 | 132,988 | 115,572 | 132,353 | 1,130,397       | 1,911,500    |
| Approved Table A water to Semitropic*                              | 0      | 0      | 0      | 0       | 25,036  | 0       | 6,174   | 0       | 0       | 0       | 0       | 0       | 31,210          |              |
| Approved Table A water to Kern Delta*                              | 0      | 0      | 0      | 0       | 1,138   | 1,324   | 10,000  | 2,538   | 0       | 576     | 0       | 0       | 15,576          |              |
| Approved Table A water transfer from SBVMWD                        | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10,000  | 10,000  | 20,000          |              |
| Approved Table A water to EWA *                                    | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 20,000  | 20,000  | 10,000  | 0       | 0       | 50,000          |              |
| Article 21 water                                                   | 18,664 | 66,664 | 82,972 | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 168,300         |              |
| Article 56C extended carryover                                     | 73,283 | 32,749 | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 106,032         |              |
| Approved Table A water exchange to Mojave*                         | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 9,725   | 10,275  | 20,000          |              |
| Pool A water                                                       | 0      | 0      | 0      | 0       | 0       | 0       | 6,530   | 0       | 0       | 0       | 0       | 0       | 6,530           |              |
| Agency Total ( * excluded water)                                   | 91,947 | 99,413 | 82,972 | 101,572 | 104,118 | 120,176 | 142,443 | 143,652 | 144,053 | 132,988 | 125,572 | 142,353 | 1,431,259       |              |
| Mojave Water Agency                                                |        |        |        |         |         |         |         |         |         |         |         |         |                 |              |
| Approved Table A water                                             | 0      | 0      | 297    | 585     | 669     | 1,166   | 1,791   | 2,139   | 1,191   | 761     | 376     | 412     | 9,387           | 75,800       |
| Approved Table A water through AVEK's service area*                | 0      | 0      | 53     | 111     | 118     | 148     | 181     | 136     | 123     | 82      | 0       | 21      | 973             |              |
| Article 56C extended carryover                                     | 345    | 813    | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 1,158           |              |
| Article 56C carryover water delivered through AVEK's service area* | 19     | 24     | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 43              |              |
| Approved Table A water exchange from MWD                           | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 9,725   | 10,275  | 20,000          |              |
| Approved Table A water exchange from Solano                        | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 2000    | 2,000           |              |
| Agency Total ( * excluded water)                                   | 345    | 813    | 297    | 585     | 669     | 1,166   | 1,791   | 2,139   | 1,191   | 761     | 10,101  | 12,687  | 32,545          |              |
| Palmdale Water District                                            |        |        |        |         |         |         |         |         |         |         |         |         |                 |              |
| Approved Table A water                                             | 0      | 0      | 339    | 1,045   | 1,063   | 1,018   | 1,380   | 1,392   | 1,067   | 1,296   | 899     | 675     | 10,174          | 21,300       |
| Article 56C extended carryover                                     | 1,459  | 79     | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 1,538           |              |
| Agency Total                                                       | 1,459  | 79     | 339    | 1,045   | 1,063   | 1,018   | 1,380   | 1,392   | 1,067   | 1,296   | 899     | 675     | 11,712          |              |
| San Bernardino Valley Municipal Water District                     |        |        |        |         |         |         |         |         |         |         |         |         |                 |              |
| Approved Table A water                                             | 0      | 0      | 0      | 127     | 300     | 772     | 1,902   | 1,508   | 693     | 1,437   | 1,668   | 2,804   | 11,211          | 102,600      |
| Article 21 water                                                   | 0      | 0      | 56     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 56              |              |
| Article 56C extended carryover                                     | 22     | 261    | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 283             |              |

**Table 9-4. Total Amounts of Water Delivered in 2005, by Month**

Sheet 9 of 10

[illegible]

Table 9-4. Total Amounts of Water Delivered in 2005, by Month

Sheet 10 of 10

| Contracting Agency and Type of Service  | Jan            | Feb            | Mar            | Apr            | May            | June           | July           | Aug            | Sept           | Oct            | Nov            | Dec            | 2005 Deliveries  | 2005 Table A     |
|-----------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
| Article 56C extended carryover exchange | 316            | 180            | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 496              |                  |
| Article 21 unscheduled water            | 0              | 0              | 568            | 1,231          | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 1,799            |                  |
| Transfer approved water                 | 0              | 0              | 0              | 0              | 0              | 100            | 2,400          | 8,200          | 22,691         | 550            | 10,000         | 10,000         | 53,941           |                  |
| Exchange approved water                 | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 20,000         | 4,684          | 10,996         | 13,992         | 49,672           |                  |
| Pool A water                            | 0              | 0              | 0              | 0              | 0              | 0              | 10,650         | 1,048          | 342            | 0              | 0              | 0              | 12,040           |                  |
| Pool B water                            | 0              | 0              | 0              | 0              | 0              | 0              | 22,194         | 4,041          | 0              | 0              | 0              | 0              | 26,235           |                  |
| Pool A water sale*                      | 12,040         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 12,040           |                  |
| Pool B water sale*                      | 0              | 26,235         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 26,235           |                  |
| Supply approved water                   | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 277            | 0              | 0              | 0              | 0              | 277              |                  |
| Agency Total ( * excluded water)        | 182,451        | 235,604        | 250,630        | 307,060        | 225,890        | 348,571        | 397,041        | 424,681        | 343,564        | 270,644        | 260,346        | 313,007        | 3,559,489        |                  |
| SWP Table A-related water               |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |
| Recreation/Fish and Wildlife water      | 109            | 74             | 47             | 90             | 151            | 79             | 156            | 301            | 199            | 110            | 87             | 103            | 1,506            |                  |
| <b>SWP Total</b>                        | <b>182,560</b> | <b>235,678</b> | <b>250,677</b> | <b>307,150</b> | <b>226,041</b> | <b>348,650</b> | <b>397,197</b> | <b>424,982</b> | <b>343,763</b> | <b>270,754</b> | <b>260,433</b> | <b>313,110</b> | <b>3,560,995</b> |                  |
| <b>NON-SWP WATER</b>                    |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |
| Other water                             |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |
| Local                                   | 47,750         | 1,257          | 2,455          | 18,109         | 154,274        | 153,394        | 210,267        | 174,402        | 71,303         | 74,519         | 108,148        | 80,751         | 1,096,629        |                  |
| Solano Settlement water                 | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 349            | 783            | 0              | 1,132            |                  |
| Vallejo Permit water                    | 0              | 0              | 0              | 0              | 0              | 502            | 398            | 200            | 1,125          | 223            | 686            | 534            | 3,668            |                  |
| Subtotal (Other water)                  | 47,750         | 1,257          | 2,455          | 18,109         | 154,274        | 153,896        | 210,665        | 174,602        | 72,428         | 75,091         | 109,617        | 81,285         | 1,101,429        |                  |
| CVP/USBR water                          |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |
| Water to DWR                            | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 4,938          | 0              | 0              | 4,938            |                  |
| Annual Contract water                   | 47             | 40             | 48             | 48             | 45             | 48             | 60             | 74             | 71             | 80             | 57             | 3              | 621              |                  |
| Kern National Wildlife Refuge water     | 411            | 0              | 620            | 849            | 506            | 0              | 0              | 1,602          | 5,130          | 5,367          | 5,222          | 3,240          | 22,947           |                  |
| Recreation/Fish& Wildlife water         | 64             | 32             | 6              | 37             | 82             | 31             | 45             | 53             | 42             | 38             | 39             | 165            | 634              |                  |
| Water exchange to SWP contractor        | 7,932          | 0              | 177            | 100            | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 8,209            |                  |
| Water transfer to SWP contractor        | 0              | 0              | 0              | 576            | 0              | 0              | 0              | 1,000          | 0              | 0              | 0              | 0              | 1,576            |                  |
| General Conveyance                      | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 19,000         | 11,717         | 567            | 31,284           |                  |
| Subtotal (CVP water)                    | 8,454          | 72             | 851            | 1,610          | 633            | 79             | 105            | 2,729          | 5,243          | 24,485         | 17,035         | 3,975          | 70,209           |                  |
| <b>Non-SWP Total</b>                    | <b>56,204</b>  | <b>1,329</b>   | <b>3,306</b>   | <b>19,719</b>  | <b>154,907</b> | <b>153,975</b> | <b>210,770</b> | <b>177,331</b> | <b>77,671</b>  | <b>99,576</b>  | <b>126,652</b> | <b>85,260</b>  | <b>1,171,638</b> |                  |
| <b>Grand total</b>                      | <b>238,764</b> | <b>237,007</b> | <b>253,983</b> | <b>326,869</b> | <b>380,948</b> | <b>502,625</b> | <b>607,967</b> | <b>602,313</b> | <b>421,434</b> | <b>370,330</b> | <b>387,085</b> | <b>398,370</b> | <b>4,732,633</b> | <b>4,125,686</b> |

Table 9-5. Total Amounts of Annual Table A Water and Water Conveyed, by Type, 1962-2005 (Acre-Feet)

| Year | Annual Table Amounts According to Long-Term Water Supply Contracts |                    |                    |                             |                          |                              |           | Water Conveyed    |                                                    |                      |                                   |                                 |               |         |           | Initial Fill Water (14) |  | Losses and Storage Changes (d) (15) |  | Total (16) |
|------|--------------------------------------------------------------------|--------------------|--------------------|-----------------------------|--------------------------|------------------------------|-----------|-------------------|----------------------------------------------------|----------------------|-----------------------------------|---------------------------------|---------------|---------|-----------|-------------------------|--|-------------------------------------|--|------------|
|      |                                                                    |                    |                    |                             |                          |                              |           | Deliveries        |                                                    |                      |                                   |                                 |               |         |           |                         |  |                                     |  |            |
|      | Upper Feather River Area (1)                                       | North Bay Area (2) | South Bay Area (3) | San Joaquin Valley Area (4) | Central Coastal Area (5) | Southern California Area (6) | Total (7) | Table A Water (8) | Article 21, Surplus, and Unscheduled Water (a) (9) | Other Water (b) (10) | Feather River Diversions (c) (11) | Wildlife/ Recreation Water (12) | Subtotal (13) |         |           |                         |  |                                     |  |            |
| 1962 | 0                                                                  | 0                  | 0                  | 0                           | 0                        | 0                            | 0         | 0                 | 0                                                  | 18,289               | 0                                 | 0                               | 18,289        | 9       | 272       | 18,570                  |  |                                     |  |            |
| 1963 | 0                                                                  | 0                  | 0                  | 0                           | 0                        | 0                            | 0         | 0                 | 0                                                  | 22,456               | 0                                 | 0                               | 22,456        | 71      | 185       | 22,712                  |  |                                     |  |            |
| 1964 | 0                                                                  | 0                  | 0                  | 0                           | 0                        | 0                            | 0         | 0                 | 0                                                  | 32,507               | 0                                 | 0                               | 32,507        | 171     | 152       | 32,830                  |  |                                     |  |            |
| 1965 | 0                                                                  | 0                  | 0                  | 0                           | 0                        | 0                            | 0         | 0                 | 0                                                  | 44,105               | 0                                 | 0                               | 44,105        | 93      | 729       | 44,927                  |  |                                     |  |            |
| 1966 | 0                                                                  | 0                  | 0                  | 0                           | 0                        | 0                            | 0         | 0                 | 0                                                  | 67,928               | 0                                 | 0                               | 67,928        | 0       | 1,746     | 69,674                  |  |                                     |  |            |
| 1967 | 0                                                                  | 0                  | 11,538             | 0                           | 0                        | 0                            | 11,538    | 11,538            | 0                                                  | 53,605               | 0                                 | 0                               | 65,143        | 8,328   | 4,212     | 77,683                  |  |                                     |  |            |
| 1968 | 550                                                                | 0                  | 109,900            | 77,350                      | 0                        | 3,700                        | 191,500   | 171,709           | 121,534                                            | 14,777               | 866,926                           | 0                               | 1,174,946     | 498,926 | 117,906   | 1,791,778               |  |                                     |  |            |
| 1969 | 620                                                                | 0                  | 98,700             | 163,075                     | 0                        | 5,000                        | 267,395   | 193,020           | 72,397                                             | 18,829               | 794,374                           | 0                               | 1,078,620     | 510,614 | 72,196    | 1,661,430               |  |                                     |  |            |
| 1970 | 700                                                                | 0                  | 114,200            | 202,000                     | 0                        | 5,700                        | 322,600   | 233,993           | 133,024                                            | 38,080               | 759,759                           | 0                               | 1,164,856     | 23,947  | 2,435     | 1,191,238               |  |                                     |  |            |
| 1971 | 890                                                                | 0                  | 116,200            | 251,800                     | 0                        | 6,700                        | 375,590   | 357,340           | 296,019                                            | 44,119               | 778,362                           | 8                               | 1,475,848     | 7,853   | 5,812     | 1,489,513               |  |                                     |  |            |
| 1972 | 970                                                                | 0                  | 118,300            | 413,066                     | 0                        | 209,423                      | 741,759   | 611,801           | 423,964                                            | 66,638               | 817,398                           | 6,489                           | 1,926,290     | 100,274 | 53,062    | 2,079,626               |  |                                     |  |            |
| 1973 | 1,100                                                              | 0                  | 120,400            | 383,652                     | 0                        | 481,100                      | 986,252   | 694,388           | 296,416                                            | 42,511               | 800,743                           | 1,155                           | 1,835,213     | 204,638 | 53,798    | 2,093,649               |  |                                     |  |            |
| 1974 | 1,230                                                              | 0                  | 122,400            | 460,650                     | 0                        | 597,920                      | 1,182,200 | 874,077           | 417,676                                            | 46,224               | 911,613                           | 2,118                           | 2,251,708     | 237,554 | 10,657    | 2,499,919               |  |                                     |  |            |
| 1975 | 1,610                                                              | 0                  | 124,500            | 545,809                     | 0                        | 714,950                      | 1,386,869 | 1,223,990         | 622,902                                            | 63,793               | 862,218                           | 3,377                           | 2,776,280     | 103,352 | (94,606)  | 2,785,026               |  |                                     |  |            |
| 1976 | 1,990                                                              | 0                  | 126,500            | 543,417                     | 0                        | 836,480                      | 1,508,387 | 1,373,002         | 580,110                                            | 115,217              | 946,440                           | 1,745                           | 3,016,514     | 61,122  | (681,025) | 2,396,611               |  |                                     |  |            |
| 1977 | 2,420                                                              | 0                  | 128,600            | 581,400                     | 0                        | 954,901                      | 1,667,321 | 574,155           | 0                                                  | 389,065              | 581,994                           | 1,111                           | 1,546,325     | 0       | (131,151) | 1,415,174               |  |                                     |  |            |
| 1978 | 1,850                                                              | 0                  | 130,700            | 635,900                     | 0                        | 1,049,584                    | 1,818,034 | 1,452,699         | 16,914                                             | 121,225              | 786,517                           | 1,691                           | 2,379,046     | 64,443  | 717,370   | 3,160,859               |  |                                     |  |            |
| 1979 | 2,130                                                              | 0                  | 132,700            | 702,685                     | 0                        | 1,190,573                    | 2,028,088 | 1,659,896         | 648,389                                            | 187,630              | 882,549                           | 1,766                           | 3,380,230     | 12,302  | (83,430)  | 3,309,102               |  |                                     |  |            |
| 1980 | 1,810                                                              | 500                | 134,800            | 758,100                     | 1,946                    | 1,317,614                    | 2,214,770 | 1,529,749         | 404,557                                            | 46,459               | 875,045                           | 2,131                           | 2,857,941     | 0       | (26,606)  | 2,831,335               |  |                                     |  |            |
| 1981 | 1,940                                                              | 650                | 137,000            | 818,000                     | 2,813                    | 1,432,065                    | 2,392,468 | 1,909,562         | 908,428                                            | 279,161              | 838,557                           | 4,688                           | 3,940,396     | 0       | (802,263) | 3,138,133               |  |                                     |  |            |
| 1982 | 1,970                                                              | 800                | 139,200            | 876,500                     | 5,626                    | 1,550,449                    | 2,574,545 | 1,750,024         | 215,873                                            | 154,882              | 776,330                           | 4,646                           | 2,901,755     | 0       | 480,752   | 3,382,507               |  |                                     |  |            |
| 1983 | 2,000                                                              | 950                | 141,400            | 867,118                     | 8,439                    | 1,681,257                    | 2,701,164 | 1,184,869         | 13,019                                             | 181,453              | 602,905                           | 7,849                           | 1,990,095     | 0       | (90,997)  | 1,899,098               |  |                                     |  |            |
| 1984 | 3,630                                                              | 1,100              | 143,600            | 979,211                     | 12,698                   | 1,744,098                    | 2,884,337 | 1,588,619         | 262,917                                            | 381,024              | 832,332                           | 7,040                           | 3,071,932     | 0       | (140,182) | 2,931,750               |  |                                     |  |            |
| 1985 | 3,760                                                              | 1,250              | 145,800            | 1,019,049                   | 21,138                   | 1,864,849                    | 3,055,846 | 1,995,453         | 307,672                                            | 404,842              | 870,008                           | 4,033                           | 3,582,008     | 0       | 92,885    | 3,674,893               |  |                                     |  |            |
| 1986 | 4,190                                                              | 1,400              | 148,100            | 1,091,946                   | 28,210                   | 1,983,890                    | 3,257,736 | 1,995,636         | 36,620                                             | 193,606              | 791,737                           | 3,865                           | 3,021,464     | 0       | 284,380   | 3,305,844               |  |                                     |  |            |
| 1987 | 4,620                                                              | 1,550              | 150,300            | 1,188,500                   | 35,204                   | 2,103,941                    | 3,484,115 | 2,130,086         | 114,907                                            | 377,592              | 831,947                           | 7,672                           | 3,462,204     | 0       | (390,413) | 3,071,791               |  |                                     |  |            |
| 1988 | 5,060                                                              | 15,471             | 152,500            | 1,246,100                   | 43,722                   | 2,225,482                    | 3,688,335 | 2,385,122         | 0                                                  | 507,076              | 794,834                           | 4,889                           | 3,691,921     | 0       | (92,850)  | 3,599,071               |  |                                     |  |            |
| 1989 | 5,500                                                              | 24,615             | 156,700            | 1,290,400                   | 56,342                   | 2,424,633                    | 3,958,190 | 2,853,747         | 0                                                  | 474,559              | 830,500                           | 8,135                           | 4,166,941     | 0       | 447,917   | 4,614,858               |  |                                     |  |            |
| 1990 | 6,040                                                              | 28,190             | 160,900            | 1,313,450                   | 70,486                   | 2,500,600                    | 4,079,666 | 2,582,151         | 90                                                 | 424,697              | 875,099                           | 9,262                           | 3,891,299     | 0       | (528,869) | 3,362,430               |  |                                     |  |            |
| 1991 | 11,880                                                             | 29,590             | 166,400            | 1,338,011                   | 70,486                   | 2,510,200                    | 4,126,567 | 549,113           | 3,521                                              | 551,051              | 565,395                           | 4,879                           | 1,673,959     | 0       | 167,435   | 1,841,394               |  |                                     |  |            |

**Table 9-5. Total Amounts of Annual Table A Water and Water Conveyed, by Type, 1962-2005 (Acre-Feet)**

Sheet 2 of 2

| Year  | Annual Table Amounts According to Long-Term Water Supply Contracts |                    |                    |                             |                          |                              |             | Water Conveyed    |                                                    |                      |                                   |                                 |               |                                                                | Total (16) |             |
|-------|--------------------------------------------------------------------|--------------------|--------------------|-----------------------------|--------------------------|------------------------------|-------------|-------------------|----------------------------------------------------|----------------------|-----------------------------------|---------------------------------|---------------|----------------------------------------------------------------|------------|-------------|
|       |                                                                    |                    |                    |                             |                          |                              |             | Deliveries        |                                                    |                      |                                   |                                 |               | Initial Fill Water (14)<br>Losses and Storage Changes (d) (15) |            |             |
|       | Upper Feather River Area (1)                                       | North Bay Area (2) | South Bay Area (3) | San Joaquin Valley Area (4) | Central Coastal Area (5) | Southern California Area (6) | Total (7)   | Table A Water (8) | Article 21, Surplus, and Unscheduled Water (a) (9) | Other Water (b) (10) | Feather River Diversions (c) (11) | Wildlife/ Recreation Water (12) | Subtotal (13) |                                                                |            |             |
| 1992  | 11,920                                                             | 32,010             | 171,900            | 1,342,300                   | 70,486                   | 2,510,200                    | 4,138,816   | 1,471,454         | 1,156                                              | 144,789              | 613,978                           | 2,605                           | 2,233,982     | 0                                                              | (63,541)   | 2,170,441   |
| 1993  | 11,960                                                             | 34,620             | 177,400            | 1,342,300                   | 70,486                   | 2,510,200                    | 4,146,966   | 2,315,235         | 0                                                  | 254,854              | 822,589                           | 2,609                           | 3,395,287     | 0                                                              | 726,123    | 4,121,410   |
| 1994  | 12,000                                                             | 37,215             | 182,000            | 1,342,300                   | 70,486                   | 2,510,200                    | 4,154,201   | 1,749,351         | 112,625                                            | 236,739              | 874,018                           | 8,200                           | 2,980,933     | 0                                                              | (295,405)  | 2,685,528   |
| 1995  | 12,050                                                             | 44,030             | 184,000            | 1,342,300                   | 70,486                   | 2,510,200                    | 4,163,066   | 1,967,093         | 64,330                                             | 78,425               | 860,077                           | 2,575                           | 2,972,500     | 0                                                              | 69,536     | 3,042,036   |
| 1996  | 12,100                                                             | 48,225             | 186,000            | 1,301,630                   | 70,486                   | 2,492,900                    | 4,111,341   | 2,514,825         | 28,647                                             | 251,391              | 934,997                           | 3,907                           | 3,733,767     | 86                                                             | 491,550    | 4,225,403   |
| 1997  | 12,150                                                             | 49,315             | 188,000            | 1,297,300                   | 45,201                   | 2,492,900                    | 4,084,866   | 2,325,775         | 21,432                                             | 322,000              | 993,211                           | 4,146                           | 3,666,564     | 527                                                            | (11,806)   | 3,655,285   |
| 1998  | 12,200                                                             | 50,420             | 188,000            | 1,272,300                   | 45,201                   | 2,517,900                    | 4,086,021   | 1,725,519         | 20,288                                             | 134,682              | 872,738                           | 2,108                           | 2,755,335     | 0                                                              | (132,491)  | 2,622,844   |
| 1999  | 12,250                                                             | 51,500             | 188,000            | 1,272,300                   | 70,486                   | 2,519,900                    | 4,114,436   | 2,738,891         | 158,070                                            | 85,312               | 1,108,672                         | 4,324                           | 4,095,269     | 0                                                              | (189,525)  | 3,905,744   |
| 2000  | 14,000                                                             | 55,945             | 210,000            | 1,205,300                   | 70,486                   | 2,565,900                    | 4,121,631   | 3,200,677         | 308,785                                            | 332,654              | 1,085,886                         | 4,030                           | 4,932,032     | 0                                                              | (20,103)   | 4,911,929   |
| 2001  | 14,670                                                             | 66,561             | 220,000            | 1,185,519                   | 70,486                   | 2,566,900                    | 4,124,136   | 1,690,926         | 43,435                                             | 477,835              | 1,078,656                         | 2,929                           | 3,293,781     | 0                                                              | 159,983    | 3,453,764   |
| 2002  | 14,730                                                             | 67,396             | 220,000            | 1,195,219                   | 70,486                   | 2,557,200                    | 4,125,031   | 2,573,030         | 37,165                                             | 307,162              | 1,132,938                         | 3,694                           | 4,053,989     | 0                                                              | 80,709     | 4,134,698   |
| 2003  | 14,790                                                             | 68,231             | 220,400            | 1,194,819                   | 70,486                   | 2,558,200                    | 4,126,926   | 2,901,041         | 59,828                                             | 251,447              | 1,008,093                         | 2,846                           | 4,223,255     | 0                                                              | 459,377    | 4,682,632   |
| 2004  | 13,100                                                             | 69,056             | 222,619            | 1,182,700                   | 70,486                   | 2,569,100                    | 4,127,061   | 2,599,536         | 218,496                                            | 385,088              | 1,174,672                         | 2,865                           | 4,380,657     | 0                                                              | 108,840    | 4,489,497   |
| 2005  | 10,800                                                             | 69,481             | 222,619            | 1,170,000                   | 70,486                   | 2,582,300                    | 4,125,686   | 2,828,406         | 731,083                                            | 96,932               | 1,074,706                         | 1,506                           | 4,732,633     | 0                                                              | 529,347    | 5,261,980   |
| Total | 236,380                                                            | 780,590            | 5,789,657          | 34,223,476                  | 1,222,858                | 62,276,809                   | 104,529,770 | 64,487,498        | 7,702,289                                          | 8,722,710            | 32,908,813                        | 136,893                         | 113,958,203   | 1,834,310                                                      | 1,364,103  | 117,156,616 |

a) Values include amounts of deliveries to short-term contractors (Mustang Water District, 1970-1972; Tracy Golf and Country Club 1974, 1979, and 1980; Green Valley Water District, 1974,1975, 1978, 1979, 1980, and 1985; Granite Construction Company, 1980).

b) Includes amounts of SWP and non-SWP water conveyed for SWP and non-SWP water contractors.

c) Includes amounts of water diverted under various water rights agreements.

d) Amounts reflect net effect of (1) operational losses from SWP transportation facilities; (2) changes in reservoir storage south of Delta; (3) storable local inflows to SWP reservoirs; (4) side inflow to San Luis Canal; and (5) inflow into California Aqueduct from Kern River Intertie.



## Chapter 10

### Power Resources

**D**elivery of a new runner for Oroville's Hyatt Power Plant refurbishment project.

## Significant Events in 2005

**O**n January 26, 2005, the Department of Water Resources (DWR) submitted its Application for New License for the Oroville Facilities with the Federal Energy Regulatory Commission (FERC).

In August 2005, the federal Energy Policy Act of 2005 was signed into law. The law authorized an Electric Reliability Organization with the statutory authority to enforce compliance with mandatory reliability standards applicable to all market participants throughout the United States' bulk electric system.

On September 12, 2005, following DWR's successful compliance with FERC's May 2005 Additional Information Request, FERC accepted DWR's Application for a New License for operating the Oroville Facilities. FERC's acceptance of DWR's license application marked the conclusion of the multiyear collaborative Alternative Licensing Process (ALP) involving federal and State agencies, Indian tribes, local agencies, environmental organizations, and other interested parties that worked to assist DWR in completing a comprehensive license application and accompanying Preliminary Draft Environmental Assessment. While this procedurally completed the ALP phase of FERC relicensing, settlement negotiations and completion of all federal/State environmental documentation was still ongoing at the end of 2005 in pursuit of a new FERC license at the Oroville Facilities.

**I**nformation for this chapter was provided by the State Water Project Analysis Office.

**L**ong-term State Water Project (SWP) contractors depend on the SWP to provide economical sources of power to deliver affordable water. In response to that need, the Department of Water Resources (DWR) developed and administers a comprehensive power resources program. Key elements of the program include the strategic timing of generation and pumping schedules, purchase of power resources and transmission services, short-term sales of power surpluses, and studies of power resources for future needs.

## Power Resources Program

The goals of the SWP power resources program are to

- obtain reliable, environmentally sensitive, and competitively priced power resources and transmission services sufficient to operate the SWP;
- develop and manage power resources to minimize the cost of water deliveries to SWP contractors;
- meet responsibilities and criteria of the Western Electricity Coordinating Council (WECC); and
- conform to regulations of the Federal Energy Regulatory Commission (FERC).

To achieve these goals, DWR constructed its own generating, pumping, and pumped-storage facilities; and enters into long-term and short-term contracts with other electric utilities for transmission access and power purchases, sales, and exchanges.

In addition, DWR participates in the California Independent System Operator (CAISO) supplemental energy market to help CAISO maintain its control area demand and supply balance. DWR generators and pumps also participate

in CAISO ancillary services markets by providing spinning and non-spinning reserves to the CAISO controlled grid. In the case of system emergencies or contingencies, DWR can drop its pump load to help CAISO maintain reliable system operation.

The power resources program takes advantage of SWP water storage and conveyance capacities that allow DWR to operate the SWP in a cost-effective manner. This control of pumping loads and generation allows DWR to enter into advantageous agreements with other electric utilities that complement the use of SWP generation to meet SWP power requirements.

## Major Electric Utility Industry Developments

In August 2005, the federal Energy Policy Act of 2005 was signed into law. The law authorized an Electric Reliability Organization with the statutory authority to enforce compliance with mandatory reliability standards applicable to all market participants throughout the United States' bulk electric system.

During 2005, CAISO continued work on proposals for major redesign of its



markets that became necessary as a result of the California energy crisis in 2000 and 2001. Initially termed Market Design 2002 (MD02), the proposal was renamed Market Redesign and Technology Upgrade (MRTU).

During 2005, the California Public Utilities Commission (CPUC) issued Decision 05-10-042, which reaffirmed and clarified the policy framework CPUC established under its *Order Instituting Rulemaking to Promote Policy and Program Coordination and Integration in Electric Utility Planning* (OIR.04-04-003). Key program determinants included monthly system obligations based on coincident peaks, supply contracts with specific resources for qualifying capacity, deferred local capacity requirements, noncompliance penalties of three times the cost for new capacity, and retention of the FERC Must Offer Obligation and waiver process until 2007.

In late 2005, CPUC issued its *Ruling Regarding Next Steps in Procurement Proceeding*. It also initiated two successor rulemakings to consider future resource adequacy issues such as the implementation of existing and multiyear requirements and mandates in local areas; and the biennial long-term procurement planning cycle and other procurement issues.

In September 2005, California Assembly Bill (AB) 380 was passed by the Legislature and signed by the Governor. AB 380 contains two sections that address resource adequacy requirements for entities subject to CPUC jurisdiction and publicly owned utilities. SWP is specifically exempted from AB 380 requirements.

## **DWR Participation in Electric Utility Industry Activities**

In 2005, DWR participated in CAISO's MRTU stakeholder processes and litigation before FERC (ER02-1656) to help ensure that MRTU was fully functional and cost allocations were appropriately structured. DWR's participation focused on the following primary elements:

- congestion revenue rights allocations;
- generation and import deliverability;
- hour-ahead scheduling process, day-ahead schedules;
- integrated forward market;
- residual unit commitment;
- real-time market;
- local area reliability contracts;
- local regulatory authority resource adequacy criteria for the SWP;
- locational marginal pricing;
- management of use-limited resources;
- market power mitigation;
- must-offer obligation for curtailable loads and resource adequacy requirements;
- participating load nodal settlement and functionality;
- perfect hedge for existing transmission contracts;
- pricing ancillary services in HASP and RT;
- trading hubs and load aggregation points; and
- marginal losses.

In 2005, DWR participated in a number of CAISO and non-CAISO electric utility stakeholder processes and FERC proceedings to help ensure that various market requirements or cost allocation mechanisms were appropriately

structured. The major processes and litigations included the following (with FERC docket number given in parenthesis):

- FERC assessment of demand response resources (AD06-2);
- FERC Opinion 478: transmission access charges/time-of-use rates (ER00-2019);
- FERC Opinion 479: transmission entitlements costs not under CAISO operational control included in jurisdictional rates (EL00-105, ER00-2019);
- FERC Order 2003: CAISO large generator interconnection agreements and procedures (ER04-445);
- FERC voltage support from non-reliability must run resources (AD05-1-000);
- CAISO Tariff Amendment 60: minimum load reliability cost allocation (ER02-1656-024, ER04-835, EL04-103);
- CAISO Tariff Amendment 66: interim solution for import and export bids under MRTU Phase 1B (ER05-718);
- CAISO Tariff Amendment 67: revisions to revise the deadline for submitting supplemental energy bids and provide for a deadline of 62 minutes prior to the operating hour (ER05-796);
- CAISO Tariff Amendment 68: station power protocol (ER05-849);
- CAISO Tariff Amendment 72: 95% DA scheduling requirement (ER05-1502);
- CAISO Tariff Amendment 73: bid caps (ER06-354);
- CAISO grid management charge (ER05-346, ER05-367);
- CAISO and Independent Energy Producer's Association joint motion on capacity generation charged for must-offer obligations energy (EL05-146);
- City of Pasadena transmission control agreement (ER05-381, EL05-18);
- southern cities transmission owner tariffs (EL03-15 and EL03-20);
- CPUC order instituting rulemaking to promote policy and program coordination and integration in electric utility resource planning: Phase IIB workshops (R.04-04-003);
- CPUC order instituting rulemaking to consider refinements to and further development of the resource adequacy requirements program (R.05-12-013);
- CPUC transmission infrastructure to access renewable energy resources (OII.05-09-005);
- Pacific Gas & Electric (PG&E) 8th transmission owner tariff (ER05-1284);
- PG&E reliability service tariff (ER06-34);
- PG&E transmission revenue balancing account adjustment, reliability services rates and transmission access charge balancing account adjustment (ER04-337, ER05-82, ER05-378);
- PG&E agreement with the City and County of San Francisco and PG&E's wholesale distribution tariff (ER05-1190);
- Southern California Edison (SCE) 3rd transmission owner tariff (ER06-186);
- SCE reliability service tariff: cost allocation-coincident peak methodology (ER05-410);
- SCE reliability service tariff: 2005 summer true-up using ER05-410 methodology (ER05-1154);
- SCE petition for declaratory order concerning transmission projects to interconnect potential wind generation in the Antelope Valley/Tehachapi Region (EL05-80);
- SCE reliability services costs associated with CAISO M-438 operating procedure (ER05-763, ER05-1154);

- SCE contracts to secure additional capacity for system reliability in SP-15 (A.05-06-003);
- San Diego Gas & Electric (SDG&E) revision to transmission owner tariff: transmission congestion costs (ER05-853); and
- U.S. Department of Energy demand response in CAISO/regional transmission organizations systems.

DWR also participated in litigation before the DC Circuit Court on several electric utility matters, including FERC Opinion No. 466, 466-A, and 466-B: approval of rolled-in rate compensation for PG&E generation plants connecting to the transmission grid (Case 04-76131); termination of extra high voltage agreements (Case 04-1171); and FERC Order 478: time differentiated rates (Case 06-74506).

## **Oroville Facilities Relicensing**

The existing 50-year term FERC hydropower license, Project Number 2100 for operation of the Oroville Facilities, will expire January 31, 2007. FERC offers three relicensing procedures—traditional, hybrid, and alternative—that allow applicants to accommodate their unique interests and operations while seeking license renewal. The traditional procedures require minimal FERC involvement, while the alternative procedures allow for more FERC involvement and encourage collaborative stakeholder interaction throughout the multiyear relicensing process. DWR selected the alternative licensing procedures. Participants in the relicensing activities indicated support for the collaborative approach, and on November 16, 2000, DWR submitted a request to FERC to use the alternative

procedures. On January 11, 2001, FERC approved DWR's request. On January 26, 2005, DWR submitted its Application for New License for the Oroville Facilities with FERC.

On September 12, 2005, following DWR's successful compliance with FERC's May 2005 Additional Information Request, FERC accepted DWR's Application for a New License for operating the Oroville Facilities. FERC's acceptance of DWR's license application marked the conclusion of the multiyear collaborative Alternative Licensing Process (ALP) involving federal and State agencies, Indian tribes, local agencies, environmental organizations, and other interested parties that worked to assist DWR in completing a comprehensive license application and accompanying Preliminary Draft Environmental Assessment. While this procedurally completed the ALP phase of FERC relicensing, settlement negotiations and completion of all federal/State environmental documentation was still ongoing at the end of 2005 in pursuit of a new FERC license at the Oroville Facilities.

During 2005, primary achievements included

- completing all 165 technical reports resulting from the 72 collaboratively developed and approved study plans. These roughly 40,000 pages of supporting documentation were submitted to FERC in support of DWR's application for license;
- completing a package of responses addressing deficiencies, clarifications, additional information requests, and revisions to the January 2005 license application;

- receiving notification that the Oroville Facilities New License Application was accepted for filing by FERC;
- submitting the application for water quality certification to the State Water Resources Control Board;
- continuing settlement agreement negotiations meetings with Indian tribes, Butte County, local governmental agencies, State and federal agencies, and other interested stakeholders; and
- continuing to prepare and update the recreation management plan submitted with the Application for License to reflect additional enhancements derived from the Settlement Agreement negotiations.

As an interim settlement activity, DWR obtained approval to provide \$3 million to the Feather River Recreation and Park District to fund recreation improvements at Riverbend Park in Oroville through calendar year 2007.

The following SWP facilities will be subject to new license terms and conditions:

- Oroville Dam and Reservoir;
- Hyatt Pumping-Generating Plant;
- Thermalito Pumping-Generating Plant;
- Thermalito Diversion Dam Power Plant;
- Thermalito Diversion Dam;
- Fish Barrier Dam;
- Feather River Fish Hatchery;
- Thermalito Power Canal;
- Thermalito Forebay; and
- Thermalito Afterbay.

## **Existing SWP Power Facilities**

Figure 10-1 shows the names, locations, and nominal capacities of DWR's primary power facilities.

### ***Hydroelectric***

Economic hydroelectric generation provides the largest share of SWP power resources. The combined Hyatt Pumping-Generating Plant and Thermalito Pumping-Generating Plant (Hyatt-Thermalito) generate about 2.2 billion kWh of energy in a median water year, while the 3 MW from Thermalito Diversion Dam Power Plant adds another 24 million kWh of energy a year.

Generation at California Aqueduct recovery plants—Alamo, Devil Canyon, Gianelli, Mojave Siphon, and Warne—varies with the amount of water conveyed. These five plants generate about one-sixth of the total energy used by the SWP.

### ***Coal***

Since July 1983, under the "Participation Agreement Reid Gardner Unit No. 4" between DWR and Nevada Power Company (NPC), DWR has received energy from Reid Gardner Power Plant, a coal-fired facility near Las Vegas, Nevada. Reid Gardner consists of four units. DWR owns 67.8 percent of Unit 4, while NPC owns the remainder of Unit 4, as well as all of Units 1, 2, and 3. Under the agreement, DWR receives up to 235 MW from Unit 4, subject to NPC's limited right to interrupt DWR's energy deliveries. Whenever NPC interrupts DWR's scheduled energy, DWR receives payment based on NPC's combustion turbine costs.

In June 1990, DWR began receiving an additional 15 MW of power from Reid

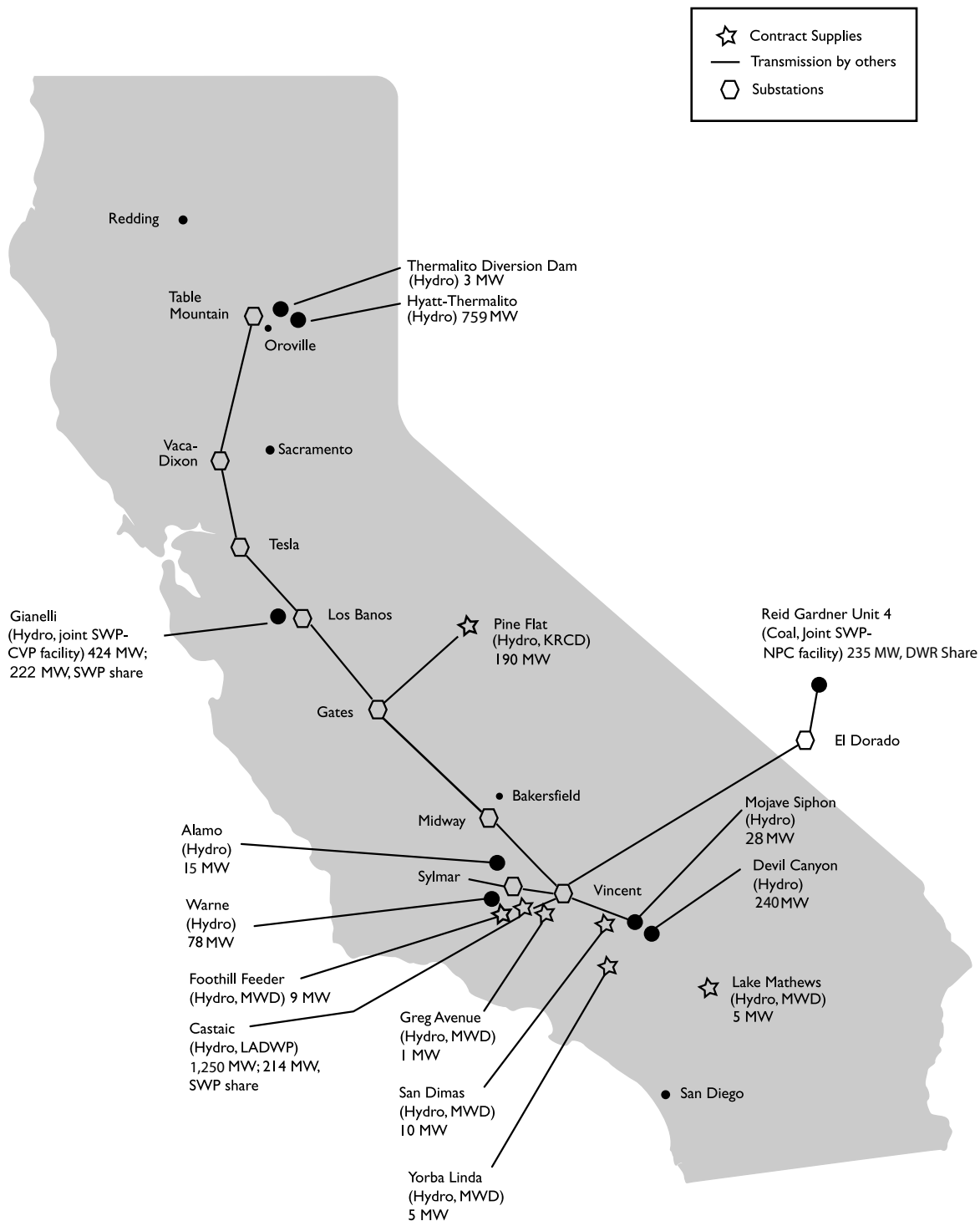


**Figure 10-1. Names, Locations, and Nameplate Capacities of Primary Power Facilities**

Gardner Unit 4 due to plant capacity upgrades. However, beginning in August 2004, new environmental restrictions in Nevada were imposed which reduced Reid Gardner Unit 4 production back to its original capacity of 260 MW. Consequently, DWR is currently not receiving the energy associated with this upgraded capacity.

### **Future SWP Power Facilities**

To meet future SWP power requirements, DWR evaluates new power resources. Factors considered include

- the anticipated power requirements for pumping;
- transmission access;
- anticipated water deliveries to contractors;
- cost of the resource;
- availability and cost of financing;
- environmental impacts and costs of mitigation; and
- operating characteristics.

In addition, DWR continues to consider several potential power resources at existing plants, including a second unit at Alamo Power Plant and a third unit at Warne Power Plant.

### **Contractual Resource Arrangements**

Through joint development, exchanges, and purchases, DWR obtains a significant amount of capacity and energy for SWP operations from other utilities throughout California, the Northwest, and the Southwest. Under these agreements, DWR can sell, buy, or exchange energy.

Some agreements allow DWR to sell, buy, and exchange energy on an hourly, daily, weekly, or monthly basis. Those agreements permit more economical use of DWR's generating resources and more efficient scheduling of energy deliveries.

### ***Joint Developments***

In 1966, DWR entered into a contract with the Los Angeles Department of Water and Power (LADWP) for joint development of the West Branch of the California Aqueduct. LADWP constructed and operates Castaic Power Plant, which is connected to the LADWP transmission system at the Sylmar Substation. DWR receives capacity and energy at the Sylmar Substation based on weekly water schedules through the West Branch.

Gianelli Pumping-Generating Plant is a joint SWP (222 MW) and U.S. Bureau of Reclamation (Reclamation) (202 MW) facility.

### ***Purchases***

DWR obtains a significant amount of energy through long-term and short-term purchase agreements.

**Long-Term Purchase Agreements.** DWR purchases hydroelectric energy generated by other utilities. The output of the 165 MW Pine Flat Power Plant, owned and operated by Kings River Conservation District, supplies the SWP with about 400 million kWh of energy in median water years.

DWR contracts for the energy output of five hydroelectric plants owned and operated by Metropolitan Water District of Southern California (Metropolitan). The total capacity of these plants is 30 MW.

**Short-Term Purchase Agreements.**

Through the Western Systems Power Pool Agreement, DWR transacts with member utilities and energy marketers on a short-term basis. Additionally, according to the terms of the 1988 Coordination Agreement between DWR and Metropolitan, DWR may purchase surplus energy from Metropolitan's Colorado River Aqueduct system. The Coordination Agreement provides for coordinated operation between the SWP and Metropolitan's Colorado River Aqueduct system. It also provides for monthly surplus firm energy sales to Metropolitan, economy energy sales to Metropolitan, surplus energy purchases from the Colorado River Aqueduct system, and energy exchanges between DWR and Metropolitan.

**Contractual Transmission Agreements**

Although able to acquire transmission independently, DWR depends on other sources for transmission services. PG&E and SCE are the primary providers of transmission service between SWP power resources and pumping loads and also with interconnected utilities for purchases, sales, and exchanges of power.

Under the Comprehensive Agreement with PG&E, DWR receives 1,300 MW of firm transmission service over the PG&E transmission system between SWP pump loads and power resources in Northern and Central California.

Previously, under the power contract with SCE, DWR received transmission service over SCE's transmission system to interconnect the SWP loads and resources in Southern California. Upon termination of the power contract at the end of 2004,

DWR began receiving transmission service for these loads and resources through CAISO. Additionally, DWR has interconnection and wholesale distribution service agreements with SCE for service over its distribution facilities from the CAISO interchange points to SWP loads and resources.

Under the Participation Agreement with NPC, DWR receives 235 MW of firm transmission service over NPC's transmission system between Reid Gardner Unit 4 and the El Dorado Substation. Under the Firm Transmission Service Agreement between SCE and DWR, DWR receives 235 MW of firm transmission service over SCE's transmission system between the El Dorado Substation and the Vincent Substation.

**Load Management**

The SWP controls the timing of its pumping load through an extensive computerized network. This control system allows DWR to minimize the cost of power it purchases by maximizing pumping during off-peak periods when power costs are lower—usually at night—and selling power to other utilities and energy marketers during on-peak periods when power costs are higher. Taking advantage of this flexibility in scheduling, SWP pumping load and generation reduces the net cost of power needed for SWP water deliveries.

***Sales of Excess Power***

When generation from SWP power resources exceeds requirements, DWR sells or exchanges the excess power through contracts with utilities and marketers.

## SWP Power Operation in 2005

Tables 10-1 through 10-4, at the end of this chapter, present historical information about SWP power operation for calendar year 2005, including energy consumed, generated, exchanged, purchased, and sold.

### Energy Consumed

In 2005, energy used at the 29 SWP pumping and generating plants totaled 8.29 million MWh. According to the terms and conditions of various water conveyance contracts and exchange agreements, some water belonging to the Central Valley Project is pumped through Banks and Dos Amigos Pumping Plants and Gianelli Pumping-Generating Plant. Reclamation furnishes additional energy for this purpose.

Table 10-1 shows the amount of energy used each month at SWP pumping and generating plants to operate the SWP in 2005, excluding transmission losses.

### Energy Generated

Table 10-2 shows the amounts of energy generated at SWP facilities in 2005, as well as energy purchased for SWP operations.

### *Hydroelectric and Coal*

The Hyatt-Thermalito power complex in Oroville generated 1.83 million MWh of energy in 2005.

Energy generated at SWP aqueduct recovery plants—Gianelli, Alamo, Devil Canyon, Mojave Siphon, and Warne—totaled 1.74 million MWh.

The SWP share of energy generated at the coal-fired Reid Gardner Unit 4 in Nevada totaled 1.58 million MWh of energy.

### Contractual Resource Arrangements

SWP power operations rely on contractual arrangements as well as SWP facilities. These contractual arrangements include joint development projects, energy exchanges, and energy purchases.

### *Joint Development*

Through the West Branch Cooperative Development Agreement with LADWP, DWR receives energy based on the amount of water scheduled through the West Branch. In 2005, LADWP provided 510,093 MWh of energy for DWR's share of energy generated at Castaic Power Plant.

DWR's share of Gianelli Pumping-Generating Plant used 363,023 MWh and generated 125,080 MWh of energy.

### *Energy Exchanges*

DWR has an energy exchange agreement with Sacramento Municipal Utility District (SMUD). Under this agreement, DWR provides SMUD with energy during peak periods from May through September. In return, SMUD provides DWR with energy during off-peak periods from January through March and from September through December. The exchange ratio of off-peak energy to on-peak energy is 1.8.

### *Purchases and Costs*

Table 10-3 shows amounts of power, transmission, and other services purchased in 2005 and the costs of purchases, by area. Amounts shown include short-term and long-term purchases. It also reflects



the restructuring of the electric industry through transactions with CAISO and through new charges (grid management and ancillary services charges).

DWR purchased 4.74 million MWh of energy at a cost of \$232.07 million. Other SWP power costs, including transmission, operation, maintenance, and CAISO ancillary services totaled \$123.83 million. This amount includes \$4.95 million for debt service and \$3.81 million for operations and maintenance costs at Pine Flat Power Plant. It also includes \$3.42 million for transmission at Reid Gardner Unit 4 and \$59.33 million for costs associated with operations and maintenance, fuel, insurance, and property taxes at Reid Gardner Unit 4.

#### **Long-Term Purchase Agreements.**

According to the terms of the Kings River Conservation District contract, DWR receives the total output of the 165 MW Pine Flat Power Plant. In 2005, the power plant provided 594,002 MWh of energy to the SWP at a total cost of \$4.57 million.

Under the Metropolitan Small Hydro Contract, DWR purchased 174,225 MWh of energy in 2005 from five small hydroelectric power plants on the Metropolitan system at a cost of \$9.24 million.

DWR purchased 686 MWh of energy at a cost of \$2,313, under the Reid Gardner Unit 4 Participation Agreement, associated with plant capacity upgrade.

**Short-Term Purchase Agreements.** Existing resources and long-term power and transmission contracts ensure that the SWP has enough power to meet long-term

needs. When SWP power requirements exceed resources during daily operations, short-term purchases meet the difference. In 2005, the SWP purchased short-term energy from 20 marketers. The short-term energy purchases totaled 2.84 million MWh at a cost of \$158.82 million. Also, DWR purchased additional amounts of short-term energy from electric utilities.

## **Sales of Excess Power**

DWR sold 2.15 million MWh of energy to 20 utilities and 22 power marketers, for total revenues of \$148.62 million in 2005. DWR also received \$33.50 million in revenues for capacity, including \$21.03 million for transactions made through CAISO. See Table 10-4 for information about energy and other services sold and revenue received, including those sold to CAISO.

## **Forecasting Power Operations**

Each year, after reviewing the water contractors' water delivery requests and the construction schedule for future facilities, DWR forecasts SWP power requirements through 2035.

Actual SWP power requirements may vary significantly from the amounts forecast. Those variations are due to the amount of water available and delivered in a given year. For example, dry conditions in Northern California could result in a reduction of the amount of water available for delivery. If full deliveries could not be made, less power would be used. Power requirements could also decrease during a wet year because of the availability of local water in the San Joaquin Valley or Southern California.

Conversely, power requirements could exceed the amount originally forecast if actual water deliveries are greater than the amounts estimated. For example, if additional pumping is needed to refill reservoirs south of the Delta after an unexpectedly dry year, then more power would be used.

### **Criteria**

DWR bases its forecast of power operations primarily on the amount of energy necessary to deliver approved Table A water requested by water contractors. The forecast includes losses in reservoirs and aqueducts, recreation water, and water to replace storage in reservoirs south of the Delta.

Short-term power requirements, based on actual water supply and reservoir storage levels, are determined for the current and two ensuing years of operation. Long-term operational studies for the remaining years are based on median-year water supply conditions and optimal reservoir storage levels.

**Table 10-1. Energy Used at Pumping Plants and Power Plants in 2005, by Month (Millions of Kilowatt-Hours)**

| <b>Pumping Plants and Power Plants</b>                                      | <b>Jan</b>     | <b>Feb</b>     | <b>Mar</b>     | <b>Apr</b>     | <b>May</b>     | <b>Jun</b>     | <b>Jul</b>     | <b>Aug</b>     | <b>Sept</b>    | <b>Oct</b>     | <b>Nov</b>     | <b>Dec</b>     | <b>Total</b>     |
|-----------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Hyatt-Thermalito Pumping-Generating Plant<br>(pumpback and station service) | 0.150          | 0.002          | 0.112          | 0.005          | 0.066          | 0.145          | 0.480          | 0.111          | 1.526          | 0.731          | 0.206          | 0.665          | 4.200            |
| North Bay Interim Pumping Plant                                             | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000            |
| Cordelia Pumping Plant                                                      | 0.646          | 0.576          | 0.414          | 0.343          | 0.701          | 0.847          | 1.127          | 1.258          | 1.231          | 0.907          | 0.983          | 0.840          | 9.872            |
| Barker Slough Pumping Plant                                                 | 0.312          | 0.231          | 0.174          | 0.185          | 0.379          | 0.985          | 1.428          | 1.641          | 1.611          | 1.175          | 0.953          | 0.451          | 9.524            |
| South Bay Pumping Plant                                                     | 2.825          | 1.794          | 2.749          | 5.949          | 8.866          | 13.209         | 14.449         | 12.435         | 7.679          | 5.221          | 8.760          | 6.343          | 90.279           |
| Del Valle Pumping Plant                                                     | 0.005          | 0.005          | 0.007          | 0.015          | 0.021          | 0.019          | 0.014          | 0.006          | 0.013          | 0.015          | 0.013          | 0.019          | 0.153            |
| Banks Pumping Plant                                                         | 136.880        | 77.667         | 62.675         | 62.658         | 34.219         | 91.648         | 122.175        | 121.274        | 118.172        | 106.698        | 87.682         | 111.943        | 1,133.692        |
| Gianelli Pumping-Generating Plant (SWP share)                               | 118.886        | 41.923         | 4.300          | 0.434          | 1.110          | 7.867          | 18.021         | 26.375         | 35.942         | 25.421         | 21.609         | 61.135         | 363.023          |
| Dos Amigos Pumping Plant (SWP share)                                        | 17.297         | 25.660         | 34.671         | 45.790         | 32.765         | 46.677         | 55.389         | 48.170         | 40.386         | 40.656         | 35.414         | 31.148         | 454.022          |
| Buena Vista Pumping Plant                                                   | 16.773         | 22.610         | 22.002         | 37.980         | 31.963         | 40.000         | 53.237         | 43.392         | 38.293         | 39.872         | 34.434         | 31.572         | 412.128          |
| Teerink Pumping Plant                                                       | 18.859         | 25.010         | 22.946         | 40.812         | 33.761         | 41.168         | 54.922         | 43.908         | 40.571         | 43.543         | 37.950         | 34.951         | 438.400          |
| Chrisman Pumping Plant                                                      | 42.314         | 56.067         | 50.685         | 90.118         | 73.512         | 88.990         | 119.723        | 95.710         | 89.338         | 96.737         | 84.740         | 78.312         | 966.247          |
| Edmonston Pumping Plant                                                     | 155.984        | 206.947        | 185.009        | 331.643        | 268.423        | 322.962        | 436.404        | 345.398        | 325.500        | 355.350        | 313.355        | 287.135        | 3,534.110        |
| Alamo Power Plant (station service)                                         | 0.016          | 0.013          | 0.003          | 0.001          | 0.002          | 0.000          | 0.001          | 0.002          | 0.004          | 0.004          | 0.032          | 0.017          | 0.095            |
| Pearblossom Pumping Plant                                                   | 36.178         | 42.053         | 51.564         | 49.450         | 50.961         | 59.305         | 72.433         | 60.841         | 52.529         | 57.205         | 55.539         | 57.579         | 645.638          |
| Pine Flat Power Plant (station service)                                     | 0.234          | 0.209          | 0.064          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.019          | 0.240          | 0.767            |
| Mojave Siphon Power Plant (station service)                                 | 0.017          | 0.007          | 0.000          | 0.001          | 0.001          | 0.000          | 0.000          | 0.000          | 0.000          | 0.001          | 0.000          | 0.004          | 0.030            |
| Devil Canyon Power Plant (station Service)                                  | 0.001          | 0.000          | 0.000          | 0.002          | 0.001          | 0.000          | 0.000          | 0.000          | 0.000          | 0.002          | 0.000          | 0.033          | 0.039            |
| Oso Pumping Plant                                                           | 3.109          | 7.206          | 0.358          | 17.907         | 9.015          | 11.367         | 18.686         | 12.905         | 14.730         | 16.769         | 12.819         | 9.577          | 134.449          |
| Warne Power Plant (station service)                                         | 0.140          | 0.078          | 0.172          | 0.025          | 0.141          | 0.272          | 0.135          | 0.123          | 0.037          | 0.014          | 0.112          | 0.290          | 1.541            |
| Las Perillas Pumping Plants                                                 | 0.160          | 0.277          | 0.284          | 0.559          | 0.865          | 1.225          | 1.403          | 1.312          | 0.834          | 0.581          | 0.168          | 0.360          | 8.028            |
| Badger Hill Pumping Plant                                                   | 0.406          | 0.735          | 0.752          | 1.461          | 2.258          | 3.224          | 3.579          | 3.395          | 2.171          | 1.511          | 0.427          | 0.952          | 20.871           |
| Devil's Den Pumping Plant                                                   | 0.875          | 0.925          | 1.113          | 1.556          | 1.846          | 2.209          | 2.458          | 2.371          | 2.183          | 1.851          | 0.850          | 1.313          | 19.549           |
| Bluestone Pumping Plant                                                     | 0.812          | 0.864          | 1.043          | 1.474          | 1.752          | 2.133          | 2.372          | 2.290          | 2.097          | 1.753          | 0.794          | 1.238          | 18.622           |
| Polonio Pass Pumping Plant                                                  | 0.888          | 0.940          | 1.137          | 1.581          | 1.857          | 2.212          | 2.468          | 2.359          | 2.165          | 1.847          | 0.858          | 1.342          | 19.653           |
| Greenspot Pumping Station                                                   | 0.217          | 0.021          | 0.039          | 0.098          | 0.093          | 0.194          | 0.255          | 0.367          | 0.241          | 0.448          | 0.218          | 0.159          | 2.350            |
| Crafton Hills Pumping Station                                               | 0.143          | 0.022          | 0.040          | 0.107          | 0.101          | 0.181          | 0.155          | 0.155          | 0.214          | 0.337          | 0.187          | 0.143          | 1.786            |
| Cherry Valley Pumping Station                                               | 0.000          | 0.002          | 0.002          | 0.008          | 0.006          | 0.008          | 0.004          | 0.008          | 0.013          | 0.003          | 0.016          | 0.013          | 0.081            |
| <i>Subtotal</i>                                                             | <i>554.128</i> | <i>511.844</i> | <i>442.318</i> | <i>690.160</i> | <i>554.686</i> | <i>736.846</i> | <i>981.319</i> | <i>825.804</i> | <i>777.480</i> | <i>798.653</i> | <i>698.138</i> | <i>717.773</i> | <i>8,289.149</i> |
| High Voltage Transmission Line Losses and Deviation                         | 14.747         | (4.122)        | (15.095)       | (10.544)       | (3.467)        | 12.846         | 11.080         | 16.087         | 6.937          | (5.407)        | (10.509)       | 6.196          | 18.750           |
| <b>Total Energy Required for SWP</b>                                        | <b>568.875</b> | <b>507.722</b> | <b>427.223</b> | <b>679.616</b> | <b>551.219</b> | <b>749.692</b> | <b>992.400</b> | <b>841.891</b> | <b>784.417</b> | <b>793.246</b> | <b>687.629</b> | <b>723.969</b> | <b>8,307.899</b> |

**Table 10-2. Energy Generated and Purchased in 2005, by Month (Millions of Kilowatt-Hours)**

| Sources of Energy                                        | Jan            | Feb            | Mar            | Apr            | May            | Jun            | Jul            | Aug            | Sept           | Oct            | Nov            | Dec            | Total            |
|----------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| <b>SWP Energy Sources</b>                                |                |                |                |                |                |                |                |                |                |                |                |                |                  |
| Hyatt-Thermalito Power Plant                             | 67.247         | 37.043         | 54.212         | 39.800         | 152.664        | 224.191        | 258.224        | 253.026        | 192.072        | 158.690        | 155.752        | 240.636        | 1,833.559        |
| Gianelli Pumping-Generating Plant (SWP share)            | 0.000          | 2.436          | 0.335          | 35.384         | 35.324         | 15.072         | 15.248         | 11.071         | 0.602          | 1.428          | 5.980          | 2.200          | 125.080          |
| Alamo Power Plant                                        | 6.242          | 6.824          | 8.750          | 8.788          | 9.073          | 10.628         | 11.744         | 10.447         | 9.295          | 9.741          | 5.263          | 8.209          | 105.003          |
| Mojave Siphon Power Plant                                | 4.029          | 4.675          | 5.813          | 5.372          | 5.683          | 6.863          | 8.360          | 6.832          | 5.837          | 6.451          | 6.181          | 6.427          | 72.525           |
| Devil Canyon Power Plant                                 | 72.550         | 83.338         | 86.439         | 90.760         | 93.486         | 106.885        | 127.857        | 109.858        | 95.478         | 103.834        | 92.552         | 89.716         | 1,152.752        |
| Reid Gardner Unit 4 <sup>a</sup>                         | 119.108        | 124.479        | 141.980        | 105.768        | 51.690         | 159.798        | 156.880        | 128.767        | 134.719        | 159.927        | 144.844        | 149.945        | 1,577.905        |
| Warne Power Plant                                        | 5.875          | 16.102         | (0.170)        | 37.519         | 22.076         | 23.235         | 38.000         | 28.086         | 32.096         | 35.863         | 26.742         | 18.838         | 284.261          |
| <i>Subtotal</i>                                          | <i>275.051</i> | <i>274.896</i> | <i>297.359</i> | <i>323.391</i> | <i>369.996</i> | <i>546.673</i> | <i>616.314</i> | <i>548.088</i> | <i>470.099</i> | <i>475.934</i> | <i>437.314</i> | <i>515.971</i> | <i>5,151.085</i> |
| <b>Energy Sources from Long-Term Agreements</b>          |                |                |                |                |                |                |                |                |                |                |                |                |                  |
| Castaic Power Plant                                      | 28.122         | 42.059         | 0.000          | 68.219         | 34.882         | 38.031         | 61.801         | 47.034         | 50.510         | 59.924         | 51.699         | 27.810         | 510.093          |
| Metropolitan Small Hydro Generation                      | 10.598         | 9.671          | 9.263          | 14.398         | 15.235         | 17.027         | 18.254         | 17.771         | 16.071         | 14.843         | 15.830         | 15.265         | 174.227          |
| Pine Flat Power Plant KRCD                               | 0.000          | 0.000          | 6.222          | 35.182         | 106.963        | 143.526        | 144.437        | 95.771         | 38.801         | 21.588         | 1.512          | 0.000          | 594.002          |
| Power Exchange Delivered to other entities <sup>b</sup>  | 0.000          | (0.336)        | 0.000          | 0.000          | (31.000)       | (30.000)       | (33.000)       | (33.160)       | (32.000)       | 0.000          | 0.000          | 0.000          | (159.496)        |
| Power Exchange Received from other entities <sup>b</sup> | 43.400         | 39.200         | 43.400         | 0.000          | 0.000          | 0.000          | 3.000          | 3.240          | 27.000         | 43.575         | 42.000         | 43.400         | 288.215          |
| Power Exchange Delivered to SCE                          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000            |
| Power Exchange Received from SCE                         | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000            |
| Energy to MWD for CRA Pumping                            | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | (20.160)       | (15.775)       | (26.505)       | 0.000          | 0.000          | 0.000          | (62.440)         |
| Energy from Metropolitan for CRA                         | 30.600         | 8.800          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 6.930          | 4.950          | 0.000          | 0.000          | 2.880          | 54.160           |
| Power System Imbalances                                  | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000          | 0.000            |
| <b>Purchases</b>                                         |                |                |                |                |                |                |                |                |                |                |                |                |                  |
| Purchases (Power Contracts)                              | 303.622        | 253.498        | 229.904        | 348.832        | 283.696        | 290.518        | 404.261        | 412.864        | 424.998        | 380.633        | 312.615        | 322.814        | 3,968.255        |
| <i>Subtotal</i>                                          | <i>416.342</i> | <i>352.892</i> | <i>288.789</i> | <i>466.630</i> | <i>409.776</i> | <i>459.103</i> | <i>578.592</i> | <i>534.675</i> | <i>503.826</i> | <i>520.563</i> | <i>423.657</i> | <i>412.170</i> | <i>5,367.016</i> |
| Total Resources                                          | 691.393        | 627.789        | 586.148        | 790.021        | 779.772        | 1,005.775      | 1,194.906      | 1082.763       | 973.925        | 996.497        | 860.971        | 928.141        | 10,518.101       |
| Less Energy Sales                                        | (122.518)      | (120.067)      | (158.925)      | (110.405)      | (228.553)      | (256.083)      | (202.506)      | (240.872)      | (189.508)      | (203.251)      | (173.342)      | (204.172)      | (2,210.202)      |
| <b>Total Energy Provided to the SWP</b>                  | <b>568.875</b> | <b>507.722</b> | <b>427.223</b> | <b>679.616</b> | <b>551.219</b> | <b>749.692</b> | <b>992.400</b> | <b>841.891</b> | <b>784.417</b> | <b>793.246</b> | <b>687.629</b> | <b>723.969</b> | <b>8,307.899</b> |

<sup>a</sup>The upgraded energy of 686 MWh from Reid Gardner Unit 4 is included.

<sup>b</sup> Amounts show actual energy available for SWP use and include transmission losses.

Table 10-3. Power, Transmission, and Other Services Purchased in 2005 and Costs of Purchases, by Area

| Name of Supplier                                                                                                               | Type of Service Purchased                                    | Power (MWH)      | Power Cost (Dollars) | Total Cost (Dollars)  |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------|----------------------|-----------------------|
| <b>Power Purchases</b>                                                                                                         |                                                              |                  |                      |                       |
| <i>Northwest Area</i>                                                                                                          |                                                              |                  |                      |                       |
| Bonneville Power Administration                                                                                                |                                                              | 147              | 8,967.00             | 8,967.00              |
| <i>Northern California Area</i>                                                                                                |                                                              |                  |                      |                       |
| Kings River Conservation District                                                                                              |                                                              | 594,002          | 4,574,843.88         | 4,574,843.88          |
| Sacramento Municipal Utility District                                                                                          |                                                              | 5,550            | 315,286.75           | 315,286.75            |
| City and County of San Francisco                                                                                               |                                                              | 505              | 24,970.00            | 24,970.00             |
| Northern California Power Agency                                                                                               |                                                              | 5,066            | 381,260.00           | 381,260.00            |
| Pacific Gas & Electric Company                                                                                                 |                                                              | 118,733          | 4,537,095.00         | 4,537,095.00          |
| <i>Southern California Area</i>                                                                                                |                                                              |                  |                      |                       |
| Metropolitan Water District of Southern California                                                                             |                                                              | 197,308          | 11,296,121.85        | 11,296,121.85         |
| Southern California Edison                                                                                                     |                                                              | 321,415          | 19,660,218.00        | 19,660,218.00         |
| City of Azusa                                                                                                                  |                                                              | 107              | 5,273.00             | 5,273.00              |
| City of Riverside                                                                                                              |                                                              | 1,412            | 91,098.00            | 91,098.00             |
| City of Vernon                                                                                                                 |                                                              | 1,805            | 121,180.00           | 121,180.00            |
| San Diego Gas and Electric                                                                                                     |                                                              | 165,506          | 10,003,148.50        | 10,003,148.50         |
| Arizona Public Services                                                                                                        |                                                              | 419,600          | 19,324,600.00        | 19,324,600.00         |
| Public Service of New Mexico                                                                                                   |                                                              | 61,058           | 2,895,759.97         | 2,895,759.97          |
| Nevada Power (Upgrade Energy)                                                                                                  |                                                              | 686              | 2,313.33             | 2,313.33              |
| <b>Energy Marketers (20)</b> AEP,AVST,BPEC,CALP,CECO,CNCO,CORP,CPSC, DETM,ECH1,MSCG,OPSI,PAC1,PWRX,PW,SEES,SETC,TEMU,UBSW,WESC |                                                              | 2,844,268        | 158,823,615.67       | 158,823,615.67        |
| <i>Subtotal</i>                                                                                                                |                                                              | 4,737,168        | 232,065,750.95       | 232,065,750.95        |
| <b>Transmission and Other Purchases</b>                                                                                        |                                                              |                  |                      |                       |
| California Independent System Operator                                                                                         | Ancillary and other services                                 |                  |                      | 36,604,391.82         |
|                                                                                                                                | FERC charges                                                 |                  |                      | 374,796.65            |
| California Power Exchange                                                                                                      | Wind up fees                                                 |                  |                      | 140,357.78            |
| Kings River Conservation District                                                                                              | Pine Flat operation and maintenance                          |                  |                      | 3,805,268.00          |
|                                                                                                                                | Pine Flat debt service and refinance fees (bonds)            |                  |                      | 4,951,058.21          |
| Los Angeles Department of Water and Power                                                                                      | Hydro Power plant scheduling for Greg Ave.                   |                  |                      | 1,150.00              |
|                                                                                                                                | Sylmar transmission service                                  |                  |                      | 73,907.61             |
| Nevada Power Company <sup>a</sup>                                                                                              | Reid Gardner Unit 4 transmission service                     |                  |                      | 1,672,932.00          |
|                                                                                                                                | Operations and maintenance                                   |                  |                      | 26,600,913.78         |
|                                                                                                                                | Coal and diesel fuel                                         |                  |                      | 31,248,696.51         |
|                                                                                                                                | Insurance                                                    |                  |                      | 561,048.94            |
|                                                                                                                                | Property taxes                                               |                  |                      | 919,716.80            |
| Pacific Gas and Electric Company                                                                                               | Midway-Wheeler Ridge, transmission operation and maintenance |                  |                      | 98,066.40             |
|                                                                                                                                | Cost of ownership for Pine Flat                              |                  |                      | 12,076.00             |
|                                                                                                                                | Transmission                                                 |                  |                      | 10,619,652.86         |
|                                                                                                                                | Cost of ownership, special facilities                        |                  |                      | 76,076.00             |
|                                                                                                                                | Castle Rock Junction—Lakeville ownership charges             |                  |                      | 102,594.00            |
|                                                                                                                                | Costal Branch: ownership charges                             |                  |                      | 156,463.00            |
| Southern California Edison Company                                                                                             | East Branch Extension Plants—transmission                    |                  |                      | 576,013.68            |
|                                                                                                                                | East Branch Extension Plants—interconnection charges         |                  |                      | 39,817.70             |
|                                                                                                                                | Additional facilities charges (D.C. and Mojave)              |                  |                      | 1,259,927.04          |
|                                                                                                                                | Mojave Siphon and Devil Canyon firm transmission             |                  |                      | 369,120.00            |
|                                                                                                                                | East Branch Extension reliability charges                    |                  |                      | 2,189.48              |
|                                                                                                                                | Reliability services (Edmonston, Oso, Pearblossom)           |                  |                      | 1,401,258.80          |
|                                                                                                                                | Firm transmission El Dorado-Vincent                          |                  |                      | 1,551,000.00          |
|                                                                                                                                | Interconnection charge (WW,AL,ED,OSO,PB)                     |                  |                      | 525,585.74            |
| FERC Charges for Government Lands                                                                                              |                                                              |                  |                      | 86,541.62             |
| <b>Miscellaneous Fees</b>                                                                                                      |                                                              |                  |                      | <b>3,755.31</b>       |
| <i>Subtotal</i>                                                                                                                |                                                              |                  |                      | 123,834,375.73        |
| <b>Total</b>                                                                                                                   |                                                              | <b>4,737,168</b> | <b>73,242,135.28</b> | <b>355,900,126.68</b> |

<sup>a</sup> NPC amounts are subject to adjustments

**Table 10-4. Energy Sold in 2005 and Revenue from Sales, by Area**

| <b>Name of Supplier</b>                            | <b>Energy Sold<br/>(MWH)</b> | <b>Revenue from<br/>Energy Sales<br/>(Dollars)</b> | <b>Revenue from Exchanges, Capacity,<br/>and other Energy Services<br/>(Dollars)</b> | <b>Total Power Sales<br/>(Dollars)</b> |
|----------------------------------------------------|------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|
| <b>Pacific Northwest Area</b>                      |                              |                                                    |                                                                                      |                                        |
| Bonneville Power Administration                    | 3,150                        | 106,800.00                                         |                                                                                      | 106,800.00                             |
| <b>Northern California Area</b>                    |                              |                                                    |                                                                                      |                                        |
| CAISO—ancillary and other services                 |                              |                                                    | 21,025,418.29                                                                        | 21,025,418.29                          |
| California Power Authority                         | 15,200                       | 1,216,000.00                                       | 7,700,000.00                                                                         | 8,916,000.00                           |
| City of Redding                                    | 175                          | 9,000.00                                           |                                                                                      | 9,000.00                               |
| City of Santa Clara                                |                              |                                                    | 19,275.23                                                                            | 19,275.23                              |
| Northern California Power Agency                   | 3,273                        | 222,027.50                                         | 14,922.76                                                                            | 236,950.26                             |
| Pacific Gas and Electric Company                   | 156,224                      | 10,761,416.00                                      |                                                                                      | 10,761,416.00                          |
| Sacramento Municipal Utility District              | 46,931                       | 3,654,158.00                                       | 1,284,000.00                                                                         | 4,938,158.00                           |
| <b>Southern California Area</b>                    |                              |                                                    |                                                                                      |                                        |
| City of Azusa                                      | 7,860                        | 484,767.35                                         |                                                                                      | 484,767.35                             |
| City of Banning                                    | 8,640                        | 656,640.00                                         |                                                                                      | 656,640.00                             |
| City of Riverside                                  | 152,453                      | 6,474,583.76                                       | 1,976,820.00                                                                         | 8,451,403.76                           |
| City of Vernon                                     | 5,148                        | 274,735.00                                         |                                                                                      | 274,735.00                             |
| Los Angeles Department of Water and Power          | 240                          | 17,760.00                                          | 587,100.00                                                                           | 604,860.00                             |
| San Diego Gas and Electric                         | 201,928                      | 15,077,255.25                                      |                                                                                      | 15,077,255.25                          |
| Southern California Edison                         | 78,797                       | 5,817,660.00                                       |                                                                                      | 5,817,660.00                           |
| Metropolitan Water District of Southern California | 400                          | 3,570.00                                           |                                                                                      | 3,570.00                               |
| <b>Southwest Area</b>                              |                              |                                                    |                                                                                      |                                        |
| Arizona Public Service                             | 39,571                       | 2,912,386.00                                       |                                                                                      | 2,912,386.00                           |
| Nevada Power Company                               | 185,162                      | 20,400,398.87                                      | 889,338.60                                                                           | 21,289,737.47                          |
| Public Service Company of New Mexico               | 5,850                        | 324,696.00                                         |                                                                                      | 324,696.00                             |
| Salt River Project                                 | 2,200                        | 73,808.00                                          |                                                                                      | 73,808.00                              |
| <b>Energy Marketers</b>                            |                              |                                                    |                                                                                      |                                        |
| American Electric Power                            | 2,800                        | 160,600.00                                         |                                                                                      | 160,600.00                             |
| Avista Energy                                      | 800                          | 38,360.00                                          |                                                                                      | 38,360.00                              |
| BP Energy Company                                  | 146,200                      | 8,588,026.00                                       |                                                                                      | 8,588,026.00                           |
| Calpine Energy Services                            | 39,213                       | 1,668,778.50                                       |                                                                                      | 1,668,778.50                           |
| Conoco Phillips                                    | 29,053                       | 1,443,919.10                                       |                                                                                      | 1,443,919.10                           |
| Constellation Power Source                         | 58,157                       | 4,788,302.57                                       |                                                                                      | 4,788,302.57                           |
| Coral Power                                        | 342,337                      | 23,033,926.50                                      |                                                                                      | 23,033,926.50                          |
| Duke Energy                                        | 86,725                       | 4,315,562.20                                       |                                                                                      | 4,315,562.20                           |
| Dynegy Power Marketing                             | 7,200                        | 351,052.00                                         |                                                                                      | 351,052.00                             |
| J. Aron & Company                                  | 30,800                       | 2,556,400.00                                       |                                                                                      | 2,556,400.00                           |
| Mirant Americas Energy Marketing                   | 800                          | 46,560.00                                          |                                                                                      | 46,560.00                              |
| Morgan Stanley Capital Group                       | 32,250                       | 1,436,250.00                                       |                                                                                      | 1,436,250.00                           |
| Occidental Power Services                          | 7,200                        | 409,152.00                                         |                                                                                      | 409,152.00                             |
| PacifiCorp                                         | 400                          | 11,800.00                                          |                                                                                      | 11,800.00                              |
| Pinacle West                                       | 3,800                        | 234,594.00                                         |                                                                                      | 234,594.00                             |
| PPM Energy                                         | 45,186                       | 3,015,429.10                                       |                                                                                      | 3,015,429.10                           |
| Powerex                                            | 35,321                       | 1,868,021.00                                       |                                                                                      | 1,868,021.00                           |
| Sempra Energy Solutions                            | 800                          | 40,504.00                                          |                                                                                      | 40,504.00                              |
| Sempra Energy Trading                              | 133,678                      | 6,931,442.00                                       |                                                                                      | 6,931,442.00                           |
| Transalta Energy Marketers                         | 180,016                      | 14,670,002.40                                      |                                                                                      | 14,670,002.40                          |
| UBS Energy                                         | 35,376                       | 3,492,764.00                                       |                                                                                      | 3,492,764.00                           |
| Williams Energy Marketers                          | 18,725                       | 1,028,176.00                                       |                                                                                      | 1,028,176.00                           |
| <b>Total</b>                                       | <b>2,150,039<sup>a</sup></b> | <b>148,617,283.10</b>                              | <b>33,496,874.88</b>                                                                 | <b>182,114,157.98</b>                  |



## Chapter 11

# Facilities Maintenance

**C***rafton Hills Reservoir*

## Significant Events in 2005

The Part 12D Safety Inspection and Potential Failure Mode Analysis (PFMA) for Cedar Springs Dam, Devil Canyon Second Afterbay, Peace Valley Intake Embankment (Quail Dam), and Pyramid Dam were performed in January.

Part 12D Safety Inspection, PFMA and Supporting Technical Information Document (STID) reports for FERC Project #2100, the Oroville-Thermalito Complex, were completed in March.

Part 12D Safety Inspection, PFMA and STID reports for FERC Project #2426 the Castaic-Devil Canyon Power Complex were completed in July 2005.

Information for this chapter was provided by the Division of Operations and Maintenance, the Division of Safety of Dams, and the State Water Project Analysis Office.



The Department of Water Resources (DWR), through the Division of Operations and Maintenance (O&M), monitors all State Water Project (SWP) facilities to ensure safety and reliability. DWR is required, under federal and State law, to contract periodically with independent consultants to review the safety of SWP dams and power facilities.

## Inspecting and Maintaining Project Dams

DWR conducts several types of inspections of SWP facilities to ensure that each dam is safe for continued operation. O&M staff collect and evaluate data about the performance of each facility. Engineers from the Division of Safety of Dams (DSOD) review instrumentation data and inspect jurisdictional SWP dams, either semi-annually or annually. They evaluate proposed modifications to existing dams, as well as the design and construction of new jurisdictional dams. The Federal Energy Regulatory Commission (FERC) inspects all licensed SWP facilities annually. These inspections include a review of significant events, instrumentation data, and the visual appearance of each dam, penstock, or power plant. In addition, under FERC and California Water Code requirements, consulting engineers and geologists are retained to evaluate SWP dam facilities every five years.

DWR contracts periodically with independent consultants to review the safety of SWP dams and power facilities, except Pearblossom Spill Basin. The four dams in the San Luis Field Division (San Luis, O'Neill Forebay, Los Banos Detention, and Little Panoche Detention) are used jointly with the U.S. Bureau of Reclamation (Reclamation), and are not under the jurisdiction of DSOD. Pearblossom Spill

Basin Dam was originally designed to be used during misoperation at the Pearblossom Pumping Plant; the spill basin was never fully completed and has never been used.

## Routine Inspections

During 2005, DSOD, along with O&M staff, inspected Frenchman, Antelope, and Grizzly Valley dams in the Upper Feather River area; Oroville, Bidwell Bar, Parish Camp, and Thermalito Afterbay dams in the Oroville Field Division; Clifton Court Forebay, Bethany, Patterson, and Del Valle dams in the Delta Field Division; and Pyramid, Castaic, Cedar Springs, Devil Canyon Power Plant Second Afterbay, Perris, and Crafton Hills dams in the Southern Field Division.

## Joint-Use Facility Inspection

Every six years, Reclamation conducts a comprehensive facility review of the four joint-use facility dams in the San Luis Field Division. The last comprehensive facility review was conducted from April 28 through May 2, 2003.

## Underwater Inspection

In May 2005, U.S. Environmental Protection Agency divers inspected the left abutment for Pyramid Dam. The inspection was to ensure clean-up efforts were satisfactory after Pacific Pipeline

No. 63 broke in April 2005, releasing oil into Pyramid Lake, and depositing oil on the left abutment and the upstream rip-rap of Pyramid Dam. In September 2005, DWR divers inspected stoplog slots and sacrificial anodes on Pyramid Dam's radial gate.

## **Independent Reviews**

### ***California Water Code Reviews***

To comply with the California Water Code and the California Code of Regulations, DWR is required to retain a consulting board to review

- 1) the adequacy of the design of any dam or reservoir DWR proposes to construct, and
- 2) the safety of the completed construction, including the terms and conditions for the Certificate of Approval.

These provisions require DWR to retain a board of three consultants to meet at least once every five years to review the operational performance of DWR-owned dams and more often when consulting on new dams. The board of consultants independently reviews and assesses safety conditions of SWP dams.

Consultants are selected based on their knowledge of geotechnical, structural, and civil engineering, including their experience in evaluating dam performance. Their independent assessments include the review of dam performance during earthquakes, evaluation of instrumentation data, inspection of each dam, and evaluation of studies performed by DWR. The consultants then prepare reports on each dam, approving dams safe for continued

operation and making recommendations. Based on these recommendations, DWR prepares action plans.

In June 2003, DSOD and O&M agreed to allow the substitution of FERC Part 12 independent review board reports, in lieu of independent review board reports required by the California Water Code and California Code of Regulations for the following dams, Oroville, Feather River Fish Hatchery, Thermalito Diversion, Thermalito Forebay, Thermalito Afterbay, Cedar Springs, Devil Canyon Second Afterbay, and Pyramid. However, DSOD reserved the right to impose additional requirements not presented by the FERC independent review board.

An independent consulting board met several times in 2004 and again in July 2005, to review the proposed Dyer Dam, located on the East Bay Aqueduct in Alameda County. On September 2005, a construction application for Dyer Dam was filed with DSOD. An independent consulting board also reviewed the safety of Perris Dam in October 2005.

### ***FERC Reviews***

These reviews and the FERC Part 12D safety inspections, which may be conducted by one or more consultants, are scheduled every five years. As a supplement to FERC Part 12D safety inspection, FERC's Dam Safety Performance Monitoring Program requires that a Potential Failure Mode Analysis (PFMA) be performed for FERC-licensed dams. The PFMA involves document review and site visits to develop a comprehensive list of potential failure modes at each dam. From this review process, three documents are generated, the FERC Part 12D safety inspection report;

PFMA report; and Supporting Technical Information Document (STID), which summarizes the project elements and details that do not change significantly over time.

The Part 12D Safety Inspection, PFMA and STID reports for FERC Project #2100, the Oroville-Thermalito Complex, were completed in March 2005. The Part 12D Safety Inspection and PFMA for Cedar Springs Dam, Devil Canyon Second Afterbay, Peace Valley Intake Embankment (Quail Dam), and Pyramid Dam were performed in January 2005. The Part 12D Safety Inspection, PFMA and STID reports for FERC Project #2426, the Castaic-Devil Canyon Power Complex were completed in July 2005.

## Arroyo Pasajero Program

The Arroyo Pasajero and its tributaries drain approximately 530 square miles of the Diablo Range of the coastal mountains, west of the California Aqueduct in Fresno County. Its downstream juncture with the San Luis Canal segment of the California Aqueduct, between Highway 198 and Avenal Cutoff Road, poses a particularly difficult operational and maintenance problem for the SWP. Reclamation designed and constructed the San Luis Canal segment of the California Aqueduct, while DWR operates and maintains it, with all costs shared 45 percent and 55 percent, respectively.

During periods of heavy rainfall, high flows in the Arroyo Pasajero and its tributaries transport heavy sediment loads eroded from the Diablo range of the coastal mountains. Over eons, sediment transported by Arroyo floods formed a 450-square-mile alluvial fan

extending from its apex at the eastern margin of Pleasant Valley (Anticline Ridge) to the San Joaquin Valley trough. The California Aqueduct traverses the Arroyo's alluvial fan and forms a barrier to Arroyo flood flows. Flood control facilities, designed to accommodate Arroyo Pasajero floodwaters, include the West Side Detention Basin (designed to store floodwaters and sediment west of the Aqueduct), an evacuation culvert to release floodwater east of the Aqueduct, and drain inlets to release floodwater into the Aqueduct. The volume of runoff and sediment transported by the Arroyo Pasajero is roughly 400 percent greater than was originally estimated during the design of the detention basin in the mid-1960s.

Since the floods of 1969, when nearly all of the detention basin's planned 50-year sediment storage capacity was filled by deposition, DWR and Reclamation have worked to mitigate the effects of heavy flooding and the diminished storage capacity of the detention basin. In 1980, asbestos discovered in the Metropolitan Water District of Southern California's water supply was traced to runoff from the Arroyo Pasajero and other Diablo range streams. This discovery, in conjunction with the high cost of removing sediment from the aqueduct, led DWR to adjust operating procedures to minimize runoff entering the Aqueduct.

## DWR and DWR/Reclamation Alternative Long-term Solution

Since the demise of the two candidate plans that were presented in the March 1999 draft Feasibility Report, the investigation has focused on a new alternative, made possible by the availability of relatively low-productivity

farmland in the western Tulare Lakebed. This plan would rely on some increased storage in the existing West Side Detention Basin, used in conjunction with a flood control reservoir that would be constructed in the western Tulare Lakebed, east of the aqueduct near Kettleman City. It would fully utilize the design philosophy of the San Luis Canal by taking excess floodwaters from detention basins along the San Luis Canal, designed to accommodate cross drainage, into the canal southward, and finally diverting them from Pool 21 into a western Tulare Lakebed reservoir. This plan has the added benefit of accommodating the largely unregulated inflows to the canal upstream of the Arroyo Pasajero.

DWR and Reclamation's version of the western Tulare Lakebed plan provides sufficient and acceptable levels of flood protection to the aqueduct at considerably lower cost. This effort was in response to the State Water Contractors' proposal that DWR develop the least costly alternative that would provide a 100-year level of flood protection to the aqueduct. To be consistent with other SWP flood protection facilities, this level of protection would be based on a single four-day flood, as opposed to the larger flood volume that would be expected from a series of six floods over 30 days, that is used by the Corps.

By applying the lower and more traditional four-day flood volume to the flood control improvements needed at the Arroyo Pasajero, a 100-year level of flood protection can be achieved, at an estimated cost of \$51 million. Of this amount, about \$13 million is estimated for specific improvements to the existing West Side Detention Basin, such as raised

embankments, drain inlet modifications, and facilities to protect adjacent non-SWP infrastructure and private properties. The remaining \$38 million is the estimated cost of a 45,000 af reservoir located in the western Tulare Lakebed, as well as an aqueduct floodwater turnout structure and chute, connecting the Aqueduct to the proposed western Tulare Lakebed reservoir. By the end of 2003, DWR had almost finished its feasibility investigation into this cost-effective plan and was planning to proceed with the final design, environmental documentation, and other procedural steps leading to construction. The project will be implemented in two phases, Phase 1 will be the construction of the planned improvements within the West Side Detention Basin; and Phase 2 will be the construction of the reservoir at the western Tulare Lakebed.

DWR is exploring alternative locations for the western Tulare Lakebed reservoir that may lead to a less expensive project.

DWR's feasibility investigation on West Side Detention Basin improvements and the western Tulare Lake reservoir plan is intended to work in conjunction with the interim flood control measures constructed at the Cantua and Salt Creek Detention basins in 1999. In addition to these measures, DWR purchased flood easement on approximately 700 acres of land west of the aqueduct near the Cantua and Salt Creek inlets. This easement purchase provides additional land for detention basins at the newly constructed Salt Creek and Cantua Creek inlet weirs. The detention basins allow sediment-laden floodwaters to decant before entering the aqueduct, thus reducing the amount of suspended solids entering the aqueduct.

In 2004, DWR finalized its plan to restore the storage capacity of the West Side Detention Basin. Construction started in August 2004, to implement the designed improvements and was partially completed in 2005. These improvements will restore the storage capacity to the detention basin and add control over releases of flood water into the aqueduct and onto private farmland. DWR is also negotiating with local landowners to acquire the necessary easements and fee property interests required for the project. Arroyo Pasajero West Side Detention Basin improvements provide a 50-year level of protection to the aqueduct from Arroyo Pasajero flooding. This protection is achieved by raising levees, adding a control structure equipped with a rubber dam, armoring the railroad embankment, installing flood gates, and acquiring flood easements.

### **Related Activities**

DWR, with the support of the State Water Contractors, continued during 2005 to provide funds and staff support to a Coordinated Resource Management Plan group, called the Stewards of the Arroyo Pasajero Watershed. The mission of this group is “to improve the Arroyo Pasajero watershed through erosion and sediment control, by implementing improved land management practices that will sustain and promote the aesthetics, environmental quality, and economic viability of the watershed.” It is believed that this watershed management plan will increase watershed infiltration and decrease erosion, complementing any structural flood control improvements, and reducing the threat Arroyo Pasajero poses to the California Aqueduct and surrounding communities.

## **Repairs and Modifications**

DWR continually monitors all SWP facilities and performs repairs and modifications as necessary to ensure safe, reliable, water delivery.

Table 11-1 presents information, arranged chronologically, about significant scheduled and unscheduled outages at SWP pumping and power plants in 2005. The table includes information about incidents resulting in outages exceeding 14 days.

**Table 11-1. Outages for Maintenance and Repair of Facilities in 2005, by Month**

| Month    | Facility                          | Units Out of Service                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| January  | Hyatt Power Plant                 | Unit 2 from January 4 to January 20 to perform weld repair on scroll case access door                                                                                                                                                                                                                                                                                                                   |
|          | Banks Pumping Plant               | Unit 1 from January 6 to January 25 for annual maintenance and to replace discharge valve o-ring<br>Unit 4 from January 26 to March 4 for annual maintenance, to replace automatic voltage regulator, and remove hot water bypass line                                                                                                                                                                  |
|          | Buena Vista Pumping Plant         | Unit 8 from January 31 to May 12 to overhaul unit, repair and upgrade cooling water system, and repair oil tub leak and pump case                                                                                                                                                                                                                                                                       |
|          | Mojave Siphon Power Plant         | Unit 2 from January 31 to February 24 for annual maintenance and to repair trashrack                                                                                                                                                                                                                                                                                                                    |
|          | Warne Power Plant                 | Unit 1 from January 2 to April 7 for annual maintenance, to rewind motor, and clean and modify cooling water sump<br>Unit 2 from January 11 to January 28 to adjust needle timing, calibrate needle limit switches, and clean cooling water sump                                                                                                                                                        |
| February | Gianelli Pumping-Generating Plant | Unit 8 from February 23 to March 28 to adjust loose fasteners on pump/turbine guide bearing and replace brake packing                                                                                                                                                                                                                                                                                   |
|          | Dos Amigos Pumping Plant          | Unit 3 from February 22 to April 6 for biennial maintenance                                                                                                                                                                                                                                                                                                                                             |
| March    | Banks Pumping Plant               | Unit 4 from March 19 to May 7 to replace unit breakers, station service feeder breaker, and discharge valve o-rings, and repair discharge valve hydraulic system and discharge line<br>Unit 5 from March 19 to May 12 for annual maintenance, to replace unit breakers and station service feeder breaker, repair discharge valve hydraulic system and discharge line, and remove hot water bypass line |
|          | Gianelli Pumping-Generating Plant | Unit 3 from March 13 to May 9 for biennial maintenance, to install automatic voltage regulator, and recoat scrollcase<br>Unit 4 from March 13 to May 12 for biennial maintenance, to install automatic voltage regulator, refurbish pump/turbine, adjust bearings, and recoat scrollcase<br>Unit 6 from March 16 to April 13 to adjust loose fasteners on pump/turbine guide bearing and repair bearing |
|          | Edmonston Pumping Plant           | Unit 4 from March 28 to June 30 to repair pump first stage impeller and rewedge motor                                                                                                                                                                                                                                                                                                                   |
|          | Pearblossom Pumping Plant         | Unit 7 from March 7 to March 22 to replace pump mechanical seal and discharge valve o-rings                                                                                                                                                                                                                                                                                                             |
| April    | Banks Pumping Plant               | Unit 6 from April 29 to May 31 for annual maintenance, to replace unit breakers, and remove hot water bypass line<br>Unit 7 from April 29 to June 16 for annual maintenance, to replace automatic                                                                                                                                                                                                       |

**Table 11-1. Outages for Maintenance and Repair of Facilities in 2005, by Month**

| Month     | Facility                          | Units Out of Service                                                                                                                                                                                           |
|-----------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                   | voltage regulator, overhaul exciter, machine pump guide bearing, and remove hot water bypass line                                                                                                              |
|           | Dos Amigos Pumping Plant          | Unit 2 from April 18 to May 24 for biennial maintenance                                                                                                                                                        |
|           | Pearblossom Pumping Plant         | Unit 7 from April 7 to April 25 to replace failed pump mechanical seal                                                                                                                                         |
|           | Reid Gardner Power Plant          | Unit 4 from April 22 to May 15 for annual maintenance                                                                                                                                                          |
| May       | Hyatt Power Plant                 | Unit 5 from May 9 to June 25 for annual maintenance and to repair damaged impeller wear rings                                                                                                                  |
|           | Gianelli Pumping-Generating Plant | Units 7 and 8 from May 16 to June 18 for biennial maintenance, to repair penstock, and recoat stay vanes                                                                                                       |
| June      | Banks Pumping Plant               | Unit 3 from June 20 to July 22 for annual maintenance, to replace automatic voltage regulator, and repair amortisseur straps                                                                                   |
| July      | Badger Hill Pumping Plant         | Unit 5 from July 12 to July 28 to repair damaged motor                                                                                                                                                         |
|           | Edmonston Pumping Plant           | Unit 3 from July 9 to August 4 to replace damaged thrust bearing                                                                                                                                               |
|           | Oso Pumping Plant                 | Unit 7 from July 25 to expected completion date in 2006 to rewind damaged motor and replace cooling water piping                                                                                               |
| August    | Banks Pumping Plant               | Unit 10 from August 23 to December 27 to repair damaged amortisseur winding                                                                                                                                    |
|           | Del Valle Pumping Plant           | Unit 2 from August 22 to expected completion date in 2006 to overhaul motor and pump                                                                                                                           |
|           | Gianelli Pumping-Generating Plant | Unit 7 from August 28 to October 5 for biennial maintenance, to install automatic voltage regulator, and recoat pump/turbine                                                                                   |
|           | Chrisman Pumping Plant            | Unit 8 from August 4 to August 18 to resurface damaged pump shaft and refurbish damaged pump guide bearing                                                                                                     |
|           | Edmonston Pumping Plant           | Unit 11 from August 8 to expected completion date in 2006 to overhaul motor and pump and replace lower pump labyrinth seal                                                                                     |
| September | Banks Pumping Plant               | Unit 2 from September 18 to expected completion date in 2006 to rewind motor, refurbish pump, replace discharge valve and station service feeder breakers, remove hot water bypass line, and modify CO2 system |
|           | Dos Amigos Pumping Plant          | Unit 1 from September 12 to October 25 for biennial maintenance, to replace CO2 system, and recoat pump                                                                                                        |

**Table 11-1. Outages for Maintenance and Repair of Facilities in 2005, by Month**

| Month    | Facility                          | Units Out of Service                                                                                                                                                                                                                                                                                                                                 |
|----------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| October  | Buena Vista Pumping Plant         | Unit 7 from September 6 to expected completion date in 2006 to overhaul motor, pump, and discharge valve                                                                                                                                                                                                                                             |
|          | Teerink Pumping Plant             | Unit 4 from September 11 to September 26 to repair oil leak from thrust bearing oil pump and damaged amortisseur winding                                                                                                                                                                                                                             |
|          | Devil Canyon Power Plant          | Unit 2 from September 19 to October 26 for annual maintenance, to replace cooling water strainer and piping, and perform weld repair on turbine shutoff valve piping                                                                                                                                                                                 |
|          | Hyatt Power Plant                 | Unit 2 from October 2 to expected completion date in 2006 to refurbish unit and replace turbine runner                                                                                                                                                                                                                                               |
|          | South Bay Pumping Plant           | Unit 7 from October 25 to November 23 to replace motor and pump with previously refurbished components                                                                                                                                                                                                                                               |
|          | Del Valle Pumping Plant           | Units 1, 3, and 4 from October 22 to November 22 for work on Unit 2                                                                                                                                                                                                                                                                                  |
|          | Gianelli Pumping-Generating Plant | Unit 5 from October 3 to expected completion date in 2006 to work on automatic voltage regulator, penstock, and transformer K6A, and install new CO2 system<br>Unit 6 from October 3 to expected completion date in 2006 for biennial maintenance, to work on automatic voltage regulator, penstock, and transformer K6A, and install new CO2 system |
|          | Chrisman Pumping Plant            | Unit 6 from October 24 to expected completion date in 2006 to overhaul motor and pump, replace corroded and damaged piping, perform weld repair on pump case and discharge line, and recoat pump                                                                                                                                                     |
|          | Devil Canyon Power Plant          | Unit 4 from October 31 to November 18 for annual maintenance, to rebuild needles, and install new cooling water strainer                                                                                                                                                                                                                             |
|          | Warne Power Plant                 | Unit 2 from October 11 to October 28 for biennial maintenance and to replace station service breakers                                                                                                                                                                                                                                                |
| November | Hyatt Power Plant                 | Unit 4 from November 28 to December 22 to recoat waterway                                                                                                                                                                                                                                                                                            |
|          | Badger Hill Pumping Plant         | Unit 5 from November 3 to November 22 to replace bad DTU card and adjust motor breaker linkage                                                                                                                                                                                                                                                       |
|          | Polonio Pass Pumping Plant        | Unit 2 from November 7 to November 22 to fix starting sequence problems and work in switchyard                                                                                                                                                                                                                                                       |
|          | Chrisman Pumping Plant            | Units 1 and 2 from November 28 to December 17 for annual maintenance, to repair discharge valve seats, replace discharge line mandoor gasket, and work on transformer KYA                                                                                                                                                                            |



**Table 11-1. Outages for Maintenance and Repair of Facilities in 2005, by Month**

| Month | Facility                  | Units Out of Service                                                                                                                                                                                                                                                                                                                                    |
|-------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                           | Unit 3 from November 28 to December 17 for annual maintenance, to replace discharge line mandoor gasket, and work on transformer KYA                                                                                                                                                                                                                    |
|       | Alamo Power Plant2221     | Unit 1 from November 17 to December 8 to replace shaft mechanical seal and seal water filtration system and repair cooling water return line                                                                                                                                                                                                            |
|       | Pearblossom Pumping Plant | Units 1 and 3 from November 28 to expected completion date in 2006 to repair discharge line, replace discharge valve o-rings, and work on transformer KYA<br>Unit 2 from November 21 to expected completion date in 2006 for annual maintenance, to repair rotor poles and discharge line, replace discharge valve o-rings, and work on transformer KYA |
|       | Pine Flat Power Plant     | Unit 1 from November 7 to expected completion date in 2006 for annual maintenance, to work in switchyard, and repair concrete encasing penstock<br>Unit 2 from November 7 to December 13 for annual maintenance and to work in switchyard<br>Unit 3 from November 7 to December 19 for annual maintenance and to work in switchyard                     |



## Chapter 12

# Engineering and Right of Way

**C**onstruction at East Branch Extension Reach 5.

## Significant Events in 2005

In 2005, work to enhance, expand, and repair water delivery in the State Water Project (SWP) continued. Increased water deliveries were more efficient within the confines of legal constraints, environmental restraints, and power availability. Significant projects included South Bay Aqueduct Enlargement, Tehachapi East Afterbay construction, and East Branch Enlargement.

The Department of Water Resources (DWR) has spent a net total of \$251 million to acquire rights of way, recreation, and mitigation land for the SWP, from its inception to December 31, 2005.

Information for this chapter was provided by the Division of Engineering.

Initial construction of the State Water Project (SWP) facilities began in 1957 with the relocation of the Western Pacific Railroad facilities and Highway 70 near the City of Oroville to accommodate the SWP Oroville facilities. Oroville Dam was constructed between 1961 and 1967. Construction of the South Bay Aqueduct (SBA) facilities was started in 1960, and the first SWP water was delivered through the SBA in 1965 to serve Alameda and Santa Clara counties.

In 1963, work began on the California Aqueduct, and by 1968, SWP was delivering water to long-term contractors in the San Joaquin Valley to the foot of the Tehachapi Mountains. By 1973, with the completion of Edmonston Pumping Plant at the foot of the Tehachapi Mountains and other East Branch conveyance facilities, SWP was delivering water to Lake Perris at the southernmost point in Los Angeles County.

In 1974, SWP water was delivered to Los Angeles County through the West Branch Facilities. SWP water was delivered to Napa County in 1968, through the first phase facilities of the North Bay Aqueduct, and to Solano County in 1988 by the second phase facilities. The first SWP water delivery through the Coastal Branch (Phase I) was made in 1968 to Kings and Kern counties.

Prior to the completion of the initial facilities in 1973, work began on the Upper Feather River facilities to supply local water, recreation, and fish enhancement. Power plants, additional pumping units, and turbine-generators that had been deferred from the initial construction of the SWP were built to ensure water quality and fish enhancement in the Delta.

From the 1980s through 2004, design and construction activities shifted to repairing concrete lining failures or potential failures

of the canal system and concrete pipeline sections; replacing equipment components of existing facilities; enlarging or extending aqueduct reaches; adding pumps and motors to existing facilities; constructing the Devil Canyon Second Afterbay; constructing Phase II of the Coastal Branch to deliver water to San Luis Obispo and Santa Barbara counties in August 1997; and extending the SWP through the East Branch Extension to San Geronio Pass service area in San Bernardino and Riverside counties. The East Branch Extension became operational in local/manual mode in 2003, while the remote control system is still being completed.

## Design Activities

In 2005, work to enhance, expand, and repair water delivery in the SWP continued. Increased water deliveries were more efficient within the confines of legal constraints, environmental restraints, and power availability. Significant projects included South Bay Aqueduct Enlargement, Tehachapi East Afterbay construction, and East Branch Enlargement. (Table 12-1 provides a list of completed and ongoing design work that was undertaken in 2005.) (Table 12-2 provides a list of projects that were constructed to replace turbines and pumps, repair pipelines, upgrade trashracks at fish hatcheries, and improve recreational and maintenance facilities at dam and reservoir sites.)

The Department of Water Resources (DWR) designed projects for development into construction contracts. Division of Engineering (DOE) staff worked with the Division of Operations and Maintenance (O&M), Division of Flood Management, Division of Environmental Services, Department of Fish and Game (DFG), Department of Boating and Waterways (DBW), Department of Transportation (Caltrans), SWP contractors, California water districts, Sacramento/San Joaquin River and Delta Levee Maintenance Districts, CALFED, U.S. Army Corps of Engineers (Corps), Bureau of Reclamation (Reclamation), Federal Energy Regulatory Commission (FERC), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NOAA Fisheries), and other entities concerned with water resources activities. DOE staff prepared preliminary designs and estimates, as well as conducted special studies of dams, canal embankments, and other SWP facilities. The studies, reports, and activities continued from previous reporting periods, or initiated in 2005, include the following:

- stability analysis for Oroville, Parish Camp Saddle, Bidwell Canyon Saddle, and Thermalito Dams;
- North Bay Aqueduct reliability study;
- geologic faulting and seismicity re-evaluation of the Clifton Court Intake Structure;
- South Bay Aqueduct reliability study;
- Gianelli Pumping-Generating Plant power transformer second containment basin;
- Gianelli pump/turbine runner replacement feasibility study;
- Devil's Den Pumping Plant trashrack/traveling screen modification;
- evaluate capacity of cross-drainage structure between Buena Vista and Teerink Pumping Plants;
- evaluate hydrology and capacity of cross-drainage facilities Buena Vista and Teerink Pumping Plants;
- develop pump refurbishing pilot program for Edmonston Pumping Plant;
- Warne Power Plant Penstock cooling water transient study;
- Castaic, Pyramid, and Perris dams—Emergency Release Facilities;
- Castaic Dam and Perris Dam Breach Inundation study;
- Castaic Dam Low Intake Tower Analysis;
- Pearlblossom Disposal Area assessment study, Phase II;
- Devil Canyon Second Afterbay Outlet Structure modification;
- Hesperia Master Drainage Plan for Antelope Wash and adjacent area;
- East Branch Enlargement, Phase II study activities;
- East Branch Extension, Phase II—Citrus Reservoir pre-feasibility study; and
- Seismic Safety Retrofit Program—seismic analysis of 24 SWP bridges.

DOE staff completed the following studies and activities:

- Thermalito Afterbay Temperature Control and Palermo Canal Diversion to Feather River Fish Hatchery, as part of the Oroville Facilities Relicensing Program;
- North Bay Aqueduct capacity enlargement reports;
- Delta seismicity study program;
- Clifton Court Forebay and Dam re-evaluation report prepared for O&M;
- Clifton Court Forebay radial gates rehabilitation;

- Skinner Fish Protection Facility—evaluation of wing gate system;
- Gianelli Pumping-Generating Plant runner replacement feasibility study;
- San Luis Dam trashrack access bridge vehicle load study;
- Vista del Lago landslide study; and
- Perris Dam foundation study.

## Environmental Activities

Environmental issues have concerned DWR since the inception of the SWP. These issues have increased in magnitude with the enactment of numerous federal and State laws. DWR has complied with these laws by incorporating environmental requirements and conditions into the design and construction phases of projects. A section dealing with environmental requirements and the protection of listed species has become an integral part of contract specifications for construction contracts. Contracts are reviewed to ensure compliance with requirements outlined in environmental permits. In 2005, two contracts required continuing environmental review.

### Excavation, Inspection, and Repair—Phase III, Santa Ana Pipeline—State Water Facilities California Aqueduct, Southern Field Division, San Bernardino and Riverside Counties, California

In 2005, the Santa Ana Pipeline, which conveys water from the Devil Canyon Power Plant to Lake Perris via buried pipeline, was repaired at locations known by DWR to contain anomalies. Pipe sections 2034, 327, 590, and 144 required repairs. These repairs were located in San Bernardino and Riverside counties. Without repairs, the Santa Ana Pipeline

had the potential to fail, causing potentially catastrophic impacts to human life and property, as well as water outage to millions of people.

Several actions were taken during these repairs to mitigate potential environmental impacts:

The contractor was required to submit an Air Quality Plan, a Water Quality Control Plan, a Fire Prevention and Control Plan, and a Storm Water Pollution Prevention Plan to DWR prior to the Notice to Begin Work.

The contractor and the contractor's employees were required to attend an environmental training meeting, prior to the start of construction, which addressed potential cultural resources and sensitive species that could be found in areas, exclusion zones, and environmental permit conditions relevant to the project.

Sensitive species known or suspected to occur on or very near portions of the project route included one federally listed species and eight non-federal/State listed species. These project areas were environmentally cleared of any sensitive species by qualified biologists prior to the start of construction.

### Tehachapi East Afterbay—Completion—Phase II, Antelope Valley—State Water Facilities, California Aqueduct, East Branch, Mojave Division, Kern County, California

This project was located at the newly constructed Tehachapi East Afterbay, north of the Alamo Power Plant. Thousands of cubic yards of material were excavated

in the existing natural drainage channel for construction of the bypass to the Cottonwood Canal Tie-In. The construction activities had the potential to impact several known special status species such as the Coast horned lizard, the Burrowing owl, and the Pallid bat; as well as flora, fauna, and vegetation communities in the area, including the Round-leaved Filaree and Southern Cottonwood Willow riparian forest. Exclusion zones were installed to protect sensitive sites from any contractor activity. In addition, environmental training meetings were conducted on a regular basis by biologists familiar with the biological resources of the area, keeping the contractor's employees and DWR personnel briefed on the biological resources at the work site.

## Construction Activities

DOE worked on 43 construction contracts in 2005. Table 12-2 shows contract title, specification number, date the contractor received the Notice to Begin Work, the expected or actual acceptance date (physical completion date is discussed in narratives below), and the actual or estimated contract cost (including change orders for added work). Resolution of contract claims may extend the actual contract closeout beyond the completion or acceptance date.

### Oroville Division

#### *Hyatt Power Plant*

The refurbishment of turbine Units 1, 3, and 5, which started in February 1999 (Specification No. 98-22), continued throughout the year, with approximately 99 percent of the work completed by the end of 2005. Due to warranty issues, completion of this project is projected for July 2007. The refurbishment of pump-

turbine Units 2, 4, and 6, which started in November 2001 (Specification No. 01-11), continued with approximately 40 percent of the work completed by the end of 2005. The estimated completion date is September 2007.

#### *Oroville Operations and Maintenance Center*

Work on a contract to replace the roofs at the Oroville Operations and Maintenance Center planner scheduler and mobile equipment buildings, the Feather River Fish Hatchery, and the Beckworth Subcenter (Specification No. 05-09) began in August 2005 and was completed in November 2005. Work included removal of existing roofing, installation of new roofing, removal and replacement or reinstallation of existing equipment, and painting.

### Delta Facilities

#### *Temporary Rock Barriers*

Work on a multiyear, 2004 through 2006, contract (Specification No. 03-07) to install and remove seasonal temporary rock barriers in designated South Delta waterways (Middle River, Old River, and Grant Line Canal) continued throughout the year with approximately 64 percent of the work completed by the end of December 2005. The temporary barriers were installed to enhance water levels and circulation in the South Delta for local agricultural diversion, to assist fish migration, and to gather hydraulic data for the design of future permanent barriers. Contract change order work included the following:

- constructing two divider walls in the intake channel at Skinner Fish Facility;
- providing South Bay Aqueduct testing and security;

- removing pond weed at Clifton Court Forebay;
- purchasing and installing piles, support beams, and catwalk for the new Water Quality Monitoring Station at Vernalis;
- purchasing equipment for the new Water Quality Monitoring Station at Vernalis;
- removing and replacing flashboards at Montezuma;
- dredging; and
- providing geologic exploration.

## **North San Joaquin Division**

### ***Skinner Fish Facility***

Replacement of the trash rake and trashrack systems (Specification No. 04-02) began in March 2004. Although these systems were installed and provisionally operational by November 2004, work added at the request of the Delta Field Division delayed acceptance until September 2005. Contract work included furnishing and installing the trashrack; an automatic monorail traveling trash rake system; and metal catwalks and handrails.

Added work included the following:

- fabricating and installing a cover plate system and manual control system;
- installing additional differential sensors;
- disposing of the existing trashracks and trash rake mechanical system;
- modifying the trash rake hydraulic system; and
- purchasing and delivering spare parts for the automated trash rake system.

### ***South Bay Aqueduct***

A contract to repair the pipeline at Milepost 39 (Specification No. 04-07)

began in July 2004. This contract was completed in January 2005 and accepted in April 2005.

### ***South Bay Aqueduct Enlargement/Improvement***

The South Bay Aqueduct Enlargement Project will enlarge the South Bay Pumping Plant to accommodate four additional units, construct a third discharge line, construct Dyer Reservoir, enlarge the canal, and modify associated structures.

A contract (Specification No. 04-05) to furnish 45 cfs pump and motor units for Unit Nos. 10 through 13 and one spare pump and motor for the South Bay Pumping Plant began in November 2004 and is expected to be completed in February 2008.

A contract to furnish power transformers (Specification No. 04-19) began in April 2005 and is expected to be completed in April 2008. In December, the contractor was directed to suspend all contract work for an estimated 150 days, due to a pending feasibility study and environmental permits.

Work on a contract to furnish valves, actuators, and hydraulic power units (Specification No. 04-20) that began in May 2005, is in the submittal stage with completion expected in December 2007.

A contract to furnish switchyard equipment (Specification No. 05-10) began in September 2005, and a contract to furnish 5 kV switchgear (Specification No. 05-05) began in October 2005. In December, both the contractors were directed to suspend all contract work for an estimated 150 days due to a pending



feasibility study and environmental permits. Completion of these two contracts is expected in January 2008.

## **San Luis Division**

### ***Gianelli Pumping-Generating Plant and Dos Amigos Pumping Plant***

In July 2004, work began on a contract (Specification No. 04-08) to refurbish the existing carbon dioxide (CO<sub>2</sub>) fire suppression system for Motor-Generator Unit Nos. 1 through 8 and the Oil Purifier Room at Gianelli, as well as Motor Unit Nos. 1 through 6 and the Oil Purifier Room at Dos Amigos. This project was approximately 96 percent complete by December 2005. The work included removing the existing devices and CO<sub>2</sub> cylinders, inspecting piping and nozzles, providing required welding and coating, furnishing, and installing the following:

- a fire alarm system, including a fire alarm control panel to provide fully integrated automatic and remote monitoring;
- new motor air housing smoke and temperature detectors;
- audible and visual alarms;
- new fully charged CO<sub>2</sub> cylinders;
- LCD annunciators and new manual pull stations; and
- new discharge heads, manual release station, lockout valves with enclosure, relief vents, bleeder valves, equipment nameplates, CO<sub>2</sub> flexible hoses, and router valves.

Contract change orders included replacing and refurbishing fire extinguishers at the San Luis Field Division, installing an escape platform at Dos Amigos, and installing safety platforms at Gianelli.

The approximate completion date is December 2007 due to a one-year CO<sub>2</sub> service maintenance contract.

**San Luis Canal.** Work on a contract to restore the West Side Detention Basin (Specification No. 04-03) began in August 2004. This contract work was essentially completed by December 2005, except for punch list items. Subsequently, the contractor was directed to fabricate and install a protective cover over the rubber dam, which will delay acceptance until 2007. Work included the following:

- earthwork;
- concrete and steel reinforcement;
- gravel surfacing on the embankment road;
- chip sealing on the operations and maintenance road;
- erosion protection;
- construction of a concrete weir with inflatable rubber dam, control system, and appurtenances; and
- rehabilitation of the existing drain inlets and evacuation culverts.

Contract change order work included the following:

- repairing MP 166R and MP 122R canal embankment;
- sealing and paving roads at Reaches 6 and 7;
- cleaning the toe drain at O'Neill Dam;
- installing gates at San Joaquin Field Division;
- installing gates at Lost Hills; and
- installing a protective cover over the rubber dam.

## **Tehachapi Division**

### ***Tehachapi East Afterbay***

The Tehachapi East Afterbay Project is located near the bifurcation of the East and West Branches of the California Aqueduct, in southern Kern County. The project will provide additional storage to the existing Tehachapi Afterbay. The principal features of this project include: an inlet channel, isolation weir, reservoir, flow barrier, spoil embankment, outlet channel, bypass, drainage culvert, control building, improvements to the existing canal, and site work.

The contract to furnish roller gates (Specification No. 04-18) began in February 2005, and it was approximately 80 percent complete in December 2005. Work included furnishing two roller gates with hydraulic actuators and one hydraulic power unit, metalwork, coatings, and electrical work.

The initial afterbay contract (Specification No. 04-17) began in February 2005, and it was 95 percent completed by December 2005. Features include the following:

- drainage culvert facilities, including a reinforced box culvert;
- inlet channel facilities, including a reinforced concrete weir;
- concrete canal lining and a new inlet tie-in to the existing aqueduct;
- a reservoir;
- an outlet channel with a cofferdam;
- a bypass turnout construction area, access road, and drainage culverts; and
- a cofferdam and water level measurement system.

The last phase of the Tehachapi East Afterbay Project began in May 2005, with the afterbay completion contract (Specification No. 05-03). Work included the following:

- constructing bypass facilities;
- constructing the control building;
- furnishing a propane tank;
- constructing a flow barrier in the reservoir;
- constructing an aqueduct plug, which included a rockfill plug, waterproof membrane, and fabric-formed concrete canal lining;
- constructing an outlet channel; and
- removing the cofferdam at the outlet channel.

This completion contract was terminated due to default, and the remaining work was divided into three contracts—Specification Nos. 05-17, 05-16, and 06-14.

Work began on Specification No. 05-17 (Completion Phase IA) in December 2005, with acceptance anticipated in March 2006. This work included constructing the Cottonwood Canal tie-in and installing Cofferdam No. 2.

Work on Specification No. 05-16 (Completion Phase II) is anticipated to begin in January 2006, and it will include the bypass facilities, control building, flow barrier, removal of Cofferdam No. 2, and miscellaneous roadwork.

The scope of work in Specification No. 06-14 (Completion Phase III), which will be awarded later in 2006, includes the outlet channel completion, aqueduct plug, Cofferdam No. 1 removal, and site work.

### ***Edmonston Pumping Plant***

A contract to replace pump Units W2, W4, W6, and W8 (Specification No. 02-10) began in June 2003, and continued throughout 2005, with completion scheduled for March 2011. This work consists of the following:

- designing, fabricating, and testing a four-stage pump model and a single-stage pump model; as well as furnishing a pump model test program report;
- designing, manufacturing, delivering, storing, and installing four pumps to replace existing pumps;
- furnishing spare parts, auxiliary equipment, tools, and templates;
- modifying existing pump foundations, if required, for the new pumps;
- applying coatings; and
- providing liaison services.

A contract to furnish spare impellers and diffusers (Specification No. 04-09) was awarded in June 2004, and was approximately 65 percent completed by December 2005. Work consists of the manufacture and delivery of the following:

- two complete sets of pump impellers and two additional impellers;
- one complete set of diffusers;
- two complete sets of stationary and rotating wearing rings;
- one complete set of upper and lower wear plates; and
- one complete set of interstage bushings and templates.

Work on a contract to refurbish the adit for the Edmonston Pumping Plant discharge lines (Specification No. 05-02) began in March 2005. This project was completed

in June 2005. The work consisted of the following:

- blasting metal surfaces, concrete footings, and rock surfaces;
- removing and disposing of corroded steel and rockfall;
- installing chain link fabric;
- providing and placing shotcrete and additional rock bolt anchorage;
- providing hazardous waste removal;
- coatings;
- installing an adit entrance gate; and
- replacing ducts, ventilation, and electrical systems.

### **West Branch**

#### ***Castaic Dam***

A contract to repair the spillway wall (Specification No. 05-12) began in August 2005, and is expected to be completed in January 2006. Work consists of the following:

- removing and replacing five concrete panels;
- removing and reconstructing damaged V-ditches;
- excavating, backfilling, and regrading;
- placing drain rock; and
- replacing topsoil and seeding disturbed areas.

#### ***Oso Pumping Plant***

Work on a contract to furnish automatic voltage regulators began in May 2000 (Specification No. 00-06). Although this work was originally scheduled for completion in June 2002, a contract change order to furnish and deliver six additional automatic voltage regulators for Pearblossom Pumping Plant extended the completion date. The contract was

accepted in May 2005, after DWR installed the automatic voltage regulators, and the contractor provided erecting engineer services.

## **Santa Ana Division**

### ***Santa Ana Pipeline***

A contract to excavate, inspect, and repair pipe sections of the Santa Ana Pipeline (Specification No. 05-14) began in October 2005, and is scheduled for completion in January 2006.

A contract to widen the concrete encasement under State Route 60 (Specification No. 05-15) began in November 2005, and was completed in December 2005, 30 days prior to the original contract completion date.

### **East Branch Extension**

Construction of the East Branch Extension began with the issuance of a Notice to Begin Work on February 26, 1999, for pipeline Reaches 1 and 2. Phase I of this project will convey 8,650 af of SWP water annually to the San Geronio Pass Water Agency service area, with provisions to provide San Bernardino deliveries to the Yucaipa Valley. Located in San Bernardino and Riverside counties, the project facilities will consist of existing pipelines, three new pipeline reaches, three new pump stations, and a new reservoir. The official groundbreaking ceremony for site work took place in Yucaipa on August 23, 1999. Below are brief descriptions of the remaining construction contracts.

### ***Pump Stations***

Work began in October 1999, on a contract to design, manufacture, test, and deliver 5 kV switchgear for Greenspot and Crafton Hills Pump Stations. This contract includes

work that will design, manufacture, test, and deliver programmable logic controllers for the Cherry Valley Pump Station (Specification No. 99-15). Site acceptance testing was completed in June 2004, and the contract was accepted in July 2005, after the contractor submitted final programming and a global database.

In November 1999, work began on a contract to design, manufacture, shop test, and deliver three 4,500-gpm and one 9,000-gpm vertical turbine pumps for Greenspot Pump Station; two 4,500-gpm and one 9,000-gpm vertical turbine pumps for Crafton Hills Pump Station; and two 3,600-gpm vertical turbine pumps for Cherry Valley Pump Station (Specification No. 99-17). The contract calls for electric motors, variable frequency drives, appurtenant equipment, and associated training programs. Completion of this contract was scheduled for December 2003; however, it was extended to 2007 due to a change order for additional pump units for Greenspot and Crafton Hills Pump Stations.

A contract to construct Greenspot, Crafton Hills, and Cherry Valley Pump Stations (Specification No. 99-27) was awarded in May 2000, and it was accepted in July 2005.

An October 2001 contract to furnish and install the control and communications systems for Greenspot, Crafton Hills, and Cherry Valley Pump Stations (Specification No. 01-05) was 99 percent completed by December 2005. Extensive punch list items and training will delay completion and acceptance, which is projected for December 2007.

### Valves

Three separate contracts were awarded to furnish East Branch Extension valves. In October 1999, work began on contracts to furnish ANSI ball valves (Specification No. 99-20) and AWWA butterfly valves (Specification No. 99-22). A contract to furnish ANSI butterfly valves began in November 1999 (Specification No. 99-23). Work on the three contracts was 99 percent completed by December 2005. Acceptance will be delayed until corrective work is finished.

## Construction Activities in Multiple Divisions

A May 2003 contract to design, manufacture, deliver, and install automatic digital voltage regulators for Banks Pumping Plant and Gianelli Pumping-Generating Plant (Specification No. 02-12) continued, with approximately 95 percent of the work completed by the end of December 2005.

In July 2005, work began on a contract to monitor, test, and repair copper communications cable and voice and data equipment along 440 miles of the California Aqueduct (Specification No. 05-07). Work on this three-year contract consists of the following:

- troubleshooting, repairing, and testing pressurized underground copper cable;
- interfacing copper cable technology to other technologies of radio, microwave, and multiplexers;
- furnishing and installing, or refurbishing and repairing compressor equipment used to pressurize the communications cable; and
- performing biannual electronic work to voice and data equipment.

Completion of this work is scheduled for April 2007.

Work on a contract that fulfills FERC permit requirements for revegetation of disturbed areas at Mojave Siphon Power Plant and Devil Canyon Second Afterbay (Specification No. 99-21) began in November 1999, and was completed in December 2005. Due to the extensive fires in late 2003, erosion control at the areas surrounding Silverwood Lake, Devil Canyon Second Afterbay, and Mojave Siphon Power Plant was added by change order. Other change order work included revegetation at Crafton Hills.

In September 2005, work began on a contract to apply asphalt seal coat and asphalt concrete to paved areas in the Oroville and Southern Field Divisions (Specification No. 05-11). Approximately 66 percent of this contract work was completed by December 2005. Work added by change order included the following:

- repairing storm damage on North Adit Road;
- furnishing and installing a modular office;
- removing the Devil Canyon Creek culvert bridge; and
- furnishing, installing, and repairing an irrigation system at Lake Perris.

A contract to repair pipeline at Pearblossom Pumping Plant and modify the weir at Devil Canyon Power Plant Afterbay (Specification No. 05-13) began in September 2005, and is expected to be completed in February 2006. This work includes the following:

- repairing 315 interior pipe joints in 108-inch inside diameter prestressed

concrete cylinder pipe;

- repairing damaged coating of a 6-foot long steel pipe section;
- removing and disposing of old joint material;
- fabricating a reinforced concrete cap for the existing weir; and
- setting weir segments in place, installing dowels, and placing shotcrete.

In August 2004, work began on a contract to apply asphalt seal coat and asphalt concrete to paved areas in the San Luis and Southern Field Divisions (Specification No. 04-10). Approximately 99 percent of the contract work was completed by December 2005. Work added by change order included the following:

- providing a temporary construction field office and soils and concrete testing laboratory;
- placing rocks along Piru Creek Road, Osito Adit Channel, Devil Canyon Headquarters Road, Smokey Bear Road, and the South Adit Access Road to stop continuing erosion from high storm flows;
- restoring corrosion test stations; and
- installing an anode bed in the vicinity of Pearblossom Pumping Plant.

A contract to furnish spare coils for Warne Power Plant and Devil Canyon Power Plant (Specification No. 01-13) started in October 2001. By the end of 2005, approximately 99 percent of the original contract work was completed. The anticipated change order for a set of stator bars for Warne Unit 2 will delay completion of all contract work until February 2006.

## Miscellaneous Construction Activities

The following non-SWP construction activities are categorized as miscellaneous:

A contract with the DWR Bay-Delta Office to install a demonstration aeration facility on Dock 20 at Rough and Ready Island in the Port of Stockton (Specification No. 05-06) began in December 2005. It is scheduled for completion in September 2006. Work includes installing the following equipment:

- two 30-inch diameter steel U-tube casings and two 20-inch diameter U-tubes to a depth 205 feet below ground surface;
- 24-inch steel piping and 30-inch HDPE diffuser piping;
- two vertical turbine pump-motor units;
- four fish screens with two air burst systems; and
- electrical items, including a programmable logic controller, water flow meter, instrumentation, and a distribution panel and meter.

## Upper Jones Tract Levee Breach

Due to a breach in the levee at the Upper Jones Tract, the Governor officially declared a State of Emergency on June 4, 2004, for flooding at Upper and Lower Jones Tracts. In response, the following four emergency contracts were awarded in June 2004 and completed in 2005:

Specification No. 04-13 to close a levee breach at Upper Jones Tract. The breach was closed in October 2004, but work continued until May 2005.

Specification No. 04-14 to provide levee protection support activities and other emergency work at Lower Jones Tract. Work was completed in February 2005.

Specification No. 04-15 to provide levee slope protection by placing riprap on the interior levee slopes of Lower Jones Tract. Work was completed in February 2005. Work was also performed at Trapper Slough levee to mitigate potential impacts from dredge spoil fill material.

Specification No. 04-16 to dewater Upper and Lower Jones Tracts. Work began in July 2004 and was completed in December 2004, with acceptance in October 2005. This work consisted of installing, operating, and maintaining two temporary pump stations, 24 hours a day, 7 days a week, until the flood water was pumped to an elevation established by the engineer.

## Real Estate Branch Activities

DWR has spent a net total of \$251 million to acquire rights of way, recreation, and mitigation land for the SWP from its inception to December 31, 2005. DWR conducted the following real estate activities from January 1 through December 31, 2005:

- Acquired one parcel (665.93 acres in fee and 1.74 acres in permanent easement) for a cost of \$885,700 for Suisun Marsh Mitigation, Meins Landing.
- Acquired one parcel (340.6 in fee) for a cost of \$220,000, California Aqueduct, East Branch, Tehachapi East Afterbay.
- Renewed 11 leases on SWP properties.
- SWP income produced \$448,882.
- Processed 37 Encroachment Permit applications; issued 29.
- Collected fees of \$151,642 for review and inspection costs related to Encroachment Permit applications.
- Received six encroachment reviews where applicant had prior property rights; completed five.
- Received five Encroachment Permit amendments; completed five.
- Coordinated review of 20 tentative tract map developments within one mile of the California Aqueduct.
- Completed four appraisals and ten appraisal reviews.

In addition, DWR obtained 59 temporary permits:

- twenty for Calaveras River Fish Passage Study;
- eight for South Bay Aqueduct Improvement and Enlargement, Bethany Reservoir;
- five each for the East Branch Extension Phase II and Santa Ana Pipeline Repair;
- two each for the Calaveras River Migration Barrier Assessment Study and the South Delta Improvement Program; and
- one for each of the following: American River Watershed, Berryessa Creek Landslide Repair, Cache Creek Erosion Damage Repair, CIMIS Weather Station, Delta Peripheral Canal, Former Cruise 'N Tarry Marina, Gauging Station at Orestimbra Creek, Milepost 62.26 to 64.46 Oil Pipeline Relocation, Old River at the Head of San Joaquin River, South Delta Barriers—Old River Project, South Delta Temporary Barriers, Suisun Marsh Monitoring, Montezuma Harbor, Tehachapi East Afterbay, Tejon Ranch Corp., and York Creek Dam.

**Table 12-1. Design Activities, January 1, 2005, through December 31, 2005, by Division**

| Construction Division and Facility                                       | Design Activity                                                                                  | Date Design Began | Design Actual/Estimated Completion Date |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|
| <b>Oroville Division</b>                                                 |                                                                                                  |                   |                                         |
| Oroville O&M Center, Feather River Fish Hatchery and Beckworth Subcenter | Roof replacement                                                                                 | April 2004        | May 2005                                |
| Oroville Recreation Facilities                                           | Brad B. Freeman bike trail realignment                                                           | December 2004     | September 2005                          |
| <b>Delta Field Division</b>                                              |                                                                                                  |                   |                                         |
| North Bay Rehabilitation/Seismic Retrofit                                | NBA rehabilitation/seismic retrofit—pipeline                                                     | March 2004        | September 2005                          |
| Skinner Fish Facility                                                    | Trashrake and trashrack replacement                                                              | August 2003       | April 2005                              |
| South Bay Aqueduct Enlargement (subcomponents below)                     |                                                                                                  |                   |                                         |
| South Bay Pumping Plant                                                  | Initial plant structure                                                                          | April 2003        | May 2006                                |
|                                                                          | Furnish valves and actuators                                                                     | July 2003         | April 2005                              |
|                                                                          | Furnish power transformers (re-bid)                                                              | December 2003     | February 2007                           |
|                                                                          | Furnish switchyard equipment                                                                     | December 2003     | July 2005                               |
|                                                                          | Furnish switchgear                                                                               | December 2003     | August 2005                             |
|                                                                          | Furnish and install SCADA equipment                                                              | February 2004     | June 2007                               |
|                                                                          | Completion contract                                                                              | January 2005      | June 2007                               |
| Discharge Line and Pipelines                                             | Plant discharge line and Brushy Creek Pipeline No. 3                                             | May 2003          | October 2006                            |
| Surge Tank No. 3                                                         | New surge tank                                                                                   | July 2004         | July 2007                               |
| Canal                                                                    | Canal modification                                                                               | July 2003         | July 2007                               |
| Dyer Reservoir                                                           | New 425 af reservoir                                                                             | September 2003    | June 2007                               |
| <b>San Joaquin Field Division</b>                                        |                                                                                                  |                   |                                         |
| Lost Hills Domestic and Fire Water Supply                                | Domestic and fire water supply                                                                   | September 2004    | September 2007                          |
| <b>Tehachapi Division</b>                                                |                                                                                                  |                   |                                         |
| Edmonston Pumping Plant                                                  | Adit refurbishment                                                                               | August 2004       | March 2005                              |
| Tehachapi East Afterbay                                                  | Completion contract <sup>a</sup>                                                                 | June 2004         | February 2005                           |
|                                                                          | Completion Phase IA contract                                                                     | December 2005     | December 2005                           |
|                                                                          | Completion Phase II contract                                                                     | December 2005     | January 2006                            |
| <b>Mojave Division</b>                                                   |                                                                                                  |                   |                                         |
| Pearblossom Pumping Plant                                                | Repair 315 interior pipe joints in 108 inch diameter PCCP—Discharge No. 1                        | June 2005         | August 2005                             |
| <b>Santa Ana Division</b>                                                |                                                                                                  |                   |                                         |
| Devil Canyon Power Plant                                                 | Weir modifications                                                                               | June 2005         | July 2005                               |
| Santa Ana Valley Pipeline                                                | Repair of sections with broken wires                                                             | May 2005          | October 2005                            |
|                                                                          | Concrete encasement of sections under Hwy. 60 expansion                                          | June 2005         | October 2005                            |
| <b>West Branch</b>                                                       |                                                                                                  |                   |                                         |
| Castaic Dam                                                              | Remove and replace damaged spillway wall                                                         | March 2005        | June 2005                               |
| <b>Multiple Divisions</b>                                                |                                                                                                  |                   |                                         |
| Oso Pumping Plant and Cedar Springs Dam Maintenance Station              | Civil maintenance and mobile equipment buildings                                                 | May 2005          | March 2007                              |
| Delta and San Luis Field Divisions                                       | Roof replacement and recoating at Banks PP, Dos Amigos PP, and Coalinga O&M subcenter structures | April 2005        | January 2006                            |
| <b>Miscellaneous</b>                                                     |                                                                                                  |                   |                                         |
| Yolo Bypass and Fremont Weir                                             | Floodway sediment removal                                                                        | November 2004     | March 2005                              |
| Stockton Deep Water Channel                                              | Demonstration aeration facility                                                                  | December 2004     | September 2005                          |
| Permanent South Delta Control                                            | Old River control structure                                                                      | September 2003    | December 2005                           |
|                                                                          | Old River flow control structure                                                                 | September 2003    | December 2005                           |
|                                                                          | Grant Line Canal flow control structure                                                          | September 2003    | December 2005                           |
|                                                                          | Middle River flow control structure                                                              | September 2003    | December 2005                           |

<sup>a</sup>Contract terminated.



**Table 12-2. Construction Activities, January 1, 2005, through December 31, 2005, by Division**

| Construction Division and Facility                             | Construction Contract (Specification Number)                                                                                   | Starting Date (NTBW <sup>a</sup> ) | Acceptance Date (Expected or Actual) | Contract Costs (In Thousands of Dollars) |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|------------------------------------------|
| <b>Oroville Division</b>                                       |                                                                                                                                |                                    |                                      |                                          |
| Hyatt Power Plant                                              | Refurbish turbine Units 1, 3, and 5 (98-22)                                                                                    | February 1999                      | September 2007                       | 10,825                                   |
|                                                                | Refurbish pump-turbine Units 2, 4, and 6 (01-11)                                                                               | November 2001                      | November 2007                        | 14,966                                   |
| Oroville Operations and Maintenance Center                     | Replace roof (05-09)                                                                                                           | August 2005                        | June 2006                            | 602                                      |
| <b>Delta Facilities</b>                                        |                                                                                                                                |                                    |                                      |                                          |
| Temporary Rock Barriers                                        | Construct temporary rock barriers: Middle River, Old River, and Grant Line Canal (03-07)                                       | November 2003                      | April 2007                           | 17,378                                   |
| <b>North San Joaquin Division</b>                              |                                                                                                                                |                                    |                                      |                                          |
| Skinner Fish Facility                                          | Replace trashrack and trashrake systems (04-02)                                                                                | March 2004                         | September 2005                       | 1,643                                    |
| <b>South Bay Aqueduct</b>                                      |                                                                                                                                |                                    |                                      |                                          |
| South Bay Aqueduct Enlargement                                 | Repair pipeline, Milepost 39 (04-07)                                                                                           | July 2004                          | April 2005                           | 2,176                                    |
|                                                                | Furnish 45 cfs pump and motor units (04-05)                                                                                    | November 2004                      | April 2008                           | 7,150                                    |
|                                                                | Furnish power transformers (04-19)                                                                                             | April 2005                         | June 2008                            | 1,287                                    |
|                                                                | Furnish valves, actuators, and hydraulic power units (04-20)                                                                   | May 2005                           | February 2008                        | 2,178                                    |
|                                                                | Furnish switchyard equipment (05-10)                                                                                           | September 2005                     | March 2008                           | 847                                      |
|                                                                | Furnish 5 kV switchgear (05-05)                                                                                                | October 2005                       | March 2008                           | 2,971                                    |
| <b>San Luis Division</b>                                       |                                                                                                                                |                                    |                                      |                                          |
| Gianelli Pumping-Generating Plant and Dos Amigos Pumping Plant | Refurbish CO <sub>2</sub> system (04-08)                                                                                       | July 2004                          | February 2008                        | 1,176                                    |
| San Luis Canal                                                 | Restore West Side Detention Basin (04-03)                                                                                      | August 2004                        | April 2007                           | 7,162                                    |
| <b>Tehachapi Division</b>                                      |                                                                                                                                |                                    |                                      |                                          |
| Tehachapi East Afterbay                                        | Furnish roller gates (04-18)                                                                                                   | February 2005                      | April 2006                           | 640                                      |
|                                                                | Construct afterbay, initial (04-17)                                                                                            | February 2005                      | April 2006                           | 20,626                                   |
|                                                                | Complete afterbay (05-03)                                                                                                      | May 2005                           | terminated                           | 4,639                                    |
|                                                                | Complete afterbay phase IA (05-17)                                                                                             | December 2005                      | March 2006                           | 2,179                                    |
| Edmonston Pumping Plant                                        | Replace pumps (02-10)                                                                                                          | June 2003                          | May 2011                             | 32,900                                   |
|                                                                | Furnish spare impellers and diffusers (04-09)                                                                                  | July 2004                          | June 2007                            | 3,900                                    |
|                                                                | Refurbish adit and discharge lines (05-02)                                                                                     | March 2005                         | August 2005                          | 1,216                                    |
| <b>West Branch</b>                                             |                                                                                                                                |                                    |                                      |                                          |
| Castaic Dam                                                    | Repair spillway wall (05-12)                                                                                                   | August 2005                        | February 2006                        | 432                                      |
| Oso Pumping Plant                                              | Furnish automatic voltage regulators (00-06)                                                                                   | May 2000                           | May 2005                             | 1,177                                    |
| <b>Santa Ana Division</b>                                      |                                                                                                                                |                                    |                                      |                                          |
| Santa Ana Pipeline                                             | Excavate, inspect, and repair pipeline (05-14)                                                                                 | October 2005                       | January 2006                         | 3,264                                    |
|                                                                | Widen concrete encasement under State Route 60 (05-15)                                                                         | November 2005                      | March 2006                           | 1,183                                    |
| <b>East Branch Extension</b>                                   |                                                                                                                                |                                    |                                      |                                          |
| <i>Pump Stations</i>                                           |                                                                                                                                |                                    |                                      |                                          |
| Greenspot, Crafton Hills, and Cherry Valley                    | Furnish 5kV switchgear, Greenspot and Crafton Hills Pump Stations, and furnish PLC cubicle, Cherry Valley Pump Station (99-15) | October 1999                       | July 2005                            | 641                                      |
|                                                                | Furnish pumps, motors, and variable frequency drives (99-17)                                                                   | November 1999                      | August 2007                          | 4,748                                    |
|                                                                | Construct pump stations (99-27)                                                                                                | June 2000                          | July 2005                            | 24,300                                   |
|                                                                | Furnish and install supervisory control and communications systems (01-05)                                                     | October 2001                       | December 2007                        | 5,500                                    |

**Table 12-2. Construction Activities, January 1, 2005, through December 31, 2005, by Division**

| Construction Division and Facility                                | Construction Contract<br>(Specification Number)                                | Starting Date<br>(NTBW*) | Acceptance Date<br>(Expected or<br>Actual) | Contract Costs<br>(In Thousands<br>of Dollars) |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------|--------------------------------------------|------------------------------------------------|
| <i>Valve Facilities</i>                                           |                                                                                |                          |                                            |                                                |
| Carter Street and Morton Canyon                                   | Furnish ANSI ball valves (99-20)                                               | October 1999             | August 2007                                | 1,145                                          |
|                                                                   | Furnish AWWA butterfly valves (99-22)                                          | October 1999             | August 2007                                | 862                                            |
|                                                                   | Furnish ANSI butterfly valves (99-23)                                          | November 1999            | August 2007                                | 1,417                                          |
| <b>Multiple Divisions</b>                                         |                                                                                |                          |                                            |                                                |
| Banks Pumping Plant and Gianelli<br>Pumping-Generating Plant      | Design, manufacture, deliver and install digital voltage<br>regulators (02-12) | May 2003                 | June 2007                                  | 2,284                                          |
| California Aqueduct                                               | Monitor, test and repair copper communications<br>equipment (05-07)            | July 2005                | June 2008                                  | 1,804                                          |
| Mojave Siphon Power Plant and Devil<br>Canyon Second Afterbay     | Revegetation (99-21)                                                           | November 1999            | February 2006                              | 761                                            |
| Oroville and Southern Field Divisions                             | Seal and pave roads 2005 (05-11)                                               | September 2005           | June 2007                                  | 2,318                                          |
| Pearblossom Pumping Plant and Devil<br>Canyon Powerplant Afterbay | Repair discharge line and modify weir (05-13)                                  | September 2005           | February 2006                              | 1,443                                          |
| San Luis and Southern Field Divisions                             | Seal and pave roads (04-10)                                                    | August 2004              | June 2005                                  | 6,109                                          |
| Warne and Devil Canyon Power Plants                               | Furnish spare coils and materials (01-13)                                      | October 2001             | May 2006                                   | 2,009                                          |
| <b>Miscellaneous Activities</b>                                   |                                                                                |                          |                                            |                                                |
| Rough and Ready Island Dock 20                                    | Install demonstration aeration facility, Port of Stockton<br>(05-06)           | December 2005            | November 2006                              | 3,541                                          |
| Upper and Lower Jones Tracts                                      | Close levee breach at Upper Jones Tract (04-13)                                | June 2004                | July 2005                                  | 10,947                                         |
|                                                                   | Support levee protection activities at Lower Jones Tract<br>(04-14)            | June 2004                | April 2005                                 | 509                                            |
|                                                                   | Protect levee slope at Lower Jones Tract (04-15)                               | June 2004                | April 2005                                 | 1,543                                          |
|                                                                   | Dewater Upper and Lower Jones Tract (14-16)                                    | July 2004                | October 2005                               | 4,803                                          |

\*Notice to Begin Work.



## Chapter 13 Recreation

*With its many reservoirs and hundreds of miles of aqueducts, the State Water Project offers a variety of recreational activities.*

## Significant Events in 2005

The Department of Fish and Game (DFG) continued its fish-planting activities at 10 of the 12 SWP facilities. Total plantings of trout was 522.3 thousand compared to the 531.6 thousand planted in 2004.

SWP facilities recorded 4.79 million recreation days of use a 12 percent increase from the 4.27 million recreation days recorded in 2004.

At Lake Oroville, the North Forebay Aquatic Center was completed and opened in July.

Information for this chapter was provided by the Division of Planning and Local Assistance, Central District, Public Affairs Office, and the State Water Project Analysis Office.

The State Water Project (SWP) is a multipurpose project that benefits millions of Californians. In addition to providing water supply, flood control, and habitat for fish and wildlife, the State Water Project offers extensive and varied recreational opportunities—tours, sightseeing, fishing, hunting, camping, boating, water skiing, bicycling, and swimming. These recreational opportunities, as well as fish and wildlife enhancement, are financed by appropriations from several legislative provisions and other funding sources.

## Recreation Areas

The SWP has 37 developed recreation areas, or sites, throughout California, including 18 developed fishing access sites. Figure 13-1 shows the names and locations of each area.

## Recreation Days

In 2005, SWP facilities recorded 4.79 million recreation days of use (Table 13-1), a 12 percent increase from the 4.27 million recreation days recorded in 2004. Recreational use at the fishing access sites and along the California Aqueduct Bikeway nearly equaled that of 2004. A recreation day is defined as one individual user visiting a recreation site along the SWP during a 1-day period.

Most SWP recreation use is concentrated at the major reservoirs with 41 percent occurring at the Lakes in Oroville Field Division and an equal 41 percent of the total SWP recreational use in 2005 occurring at the four major reservoirs in Southern California: Pyramid Lake, Castaic Lake, Silverwood Lake, and Lake Perris. Since the SWP began delivering water in 1962, more than 185 million recreation days have been recorded at SWP recreational facilities. In addition to the

recreation use, visitation totaled 211,00 at the three following DWR visitors centers:

- Kelly Ridge, Lake Oroville, 87,100
- Romero Overlook, San Luis Reservoir, 112,100
- Vista Del Lago, Pyramid Lake, 11,800 (Usage recorded from January 1 through February 22. Facility closed February 23, 2005 through October 31, 2006 due to rain caused landslides.)

## Facilities

### Planning

During 2005, the Department of Boating and Waterways began plans for the following projects:

- Lake Davis: Honker Cove Ramp Extension.
- Lake Oroville: Boat launching facility at Feather River Outlet Wilbur Road Boat launching facility.
- Lake Perris: Alessudro Island rehabilitation.



1. Antelope Lake Recreation Area
2. Frenchman Lake Recreation Area
3. Lake Davis Recreation Area
4. Lake Oroville State Recreation Area
5. White Slough Wildlife Area
6. Bethany Reservoir
7. Lake del Valle State Recreation Area
8. Bikeway from Bethany Reservoir to O'Neill Forebay (70 miles)
9. Grant Line Road Fishing Access Site
10. Niels Hansen Fishing Access Site
11. Orestimba Fishing Access Site
12. Access Walk-in Fishing (63 miles)
13. Cottonwood Road Fishing Access Site
14. San Luis Reservoir State Recreation Area
15. Los Banos Reservoir
16. Canyon Road Fishing Access Site
17. Mervel Avenue Fishing Access Site
18. Fairfax Fishing Access Site
19. Access to Walk-in Fishing (208 miles accessible along the aqueduct)
20. Three Rocks Fishing Access Site
21. Huron Fishing Access Site
22. Avenal Cutoff Fishing Access Site
23. Kettleman City Fishing Access Site
24. Lost Hills Fishing Access Site
25. Buttonwillow Fishing Access Site
26. Pyramid Lake State Recreation Area
27. Castaic Lake State Recreation Area
28. Munz Ranch Road Fishing Access Site
29. Bikeway from Quail Lake to Silverwood Lake (107 miles, not all accessible)
30. 70th Street West Fishing Access Site
31. Access Walk-in Fishing (83 miles)
32. Avenue S Fishing Access Site
33. 77th Street East Fishing Access Site
34. Longview Road Fishing Access Site
35. Silverwood Lake State Recreation Area
36. Lake Perris State Recreation Area
37. San Jacinto Wildlife Area

**Figure 13-1. Names and Locations of SWP Recreation Areas**

**Table 13-1. Recreation-Days Recorded in 2005, by Field Division and Facility**

| Field Division and Facility                                                                   | Number of Recreation Days |
|-----------------------------------------------------------------------------------------------|---------------------------|
| <b>Oroville Field Division</b>                                                                |                           |
| Frenchman Lake                                                                                | 240,000                   |
| Antelope Lake                                                                                 | 70,000                    |
| Lake Davis                                                                                    | 138,000                   |
| Lake Oroville and Thermalito Forebays                                                         | 1,072,000                 |
| Thermalito Afterbay and Oroville Wildlife Area                                                | 353,500                   |
| Lake Oroville Visitor Center                                                                  | 88,500                    |
| <i>Subtotal</i>                                                                               | <i>1,962,000</i>          |
| <b>Delta Field Division</b>                                                                   |                           |
| Lake Del Valle                                                                                | 268,100                   |
| Bethany Reservoir                                                                             | 28,000                    |
| Fishing Access Sites:                                                                         |                           |
| Neils Hansen                                                                                  | 100                       |
| California Aqueduct:                                                                          |                           |
| Walk-in fishing                                                                               | 600                       |
| Bikeway                                                                                       | 100                       |
| White Slough Wildlife Area                                                                    | 12,000                    |
| <i>Subtotal</i>                                                                               | <i>308,800</i>            |
| <b>San Luis Field Division</b>                                                                |                           |
| San Luis Reservoir SRA, includes San Luis Reservoir, O'Neill Forebay, and Los Banos Reservoir | 532,000                   |
| California Aqueduct:                                                                          |                           |
| Walk-in fishing                                                                               | 12,000                    |
| Wildlife Areas                                                                                | 11,000                    |
| <i>Subtotal</i>                                                                               | <i>555,000</i>            |
| <b>San Joaquin Field Division</b>                                                             |                           |
| Fishing Access Sites:                                                                         |                           |
| Kettleman City                                                                                | 1,000                     |
| Lost Hills                                                                                    | 1,000                     |
| Buttonwillow                                                                                  | 1,000                     |
| California Aqueduct:                                                                          |                           |
| Walk-in fishing                                                                               | 9,500                     |
| <i>Subtotal</i>                                                                               | <i>12,500</i>             |
| <b>Southern Field Division</b>                                                                |                           |
| Silverwood Lake                                                                               | 245,700                   |
| Lake Perris                                                                                   | 1,020,700                 |
| Pyramid Lake                                                                                  | 100,000                   |
| Castaic Lake                                                                                  | 581,000                   |
| Fishing Access Sites:                                                                         |                           |
| Quail Lake                                                                                    | 1,300                     |
| 77th Street East                                                                              | 400                       |
| Longview Road                                                                                 | 100                       |
| California Aqueduct:                                                                          |                           |
| Walk-In fishing                                                                               | 2,500                     |
| Bikeway                                                                                       | 400                       |
| <i>Subtotal</i>                                                                               | <i>1,952,100</i>          |
| <b>Total</b>                                                                                  | <b>4,790,300</b>          |

## New Facilities

### *Lake Oroville*

The North Forebay Aquatic Center was completed and opened in July 2005. Bidwell Canyon restroom facility was completed.

### *Silverwood Lake*

Vault toilets at Boat-in Sites Sycamore, Chamise and Live Oak.

### *Lake Perris*

New restroom facilities at ramps 6 and 7.

### *Lake Del Valle*

A new recycling project was initiated by installing six recycling bins on concrete pads. New trail marker discs were installed on major trails. A new check valve, clear well, chlorine generation system, and SCADA system was installed and operating at water treatment plant.

## Improvements to Facilities

Improvements were made at the following facilities:

### *Lake Del Valle*

Water faucets were replaced with new metal ones. A second metering pump and a second chlorine analyzer were installed at the water treatment plant. Two group picnic area BBQ pits were replaced with upgraded concrete ones. Major culvert on Deer Jaw Trail was replaced.

### *Silverwood Lake*

Boat-in site renovation project was bid and awarded with construction scheduled for completion in 2005.

### **Pyramid Lake**

Emigrant Landing eroded slopes were repaired. Emergency repairs of docks at boat-in sites were completed.

## **Oroville Recreation Plan**

The Federal Energy Regulatory Commission (FERC) Order 2100-052, issued on October 1, 1992, required DWR to prepare a revised recreation plan for Lake Oroville, replacing the original *Oroville Reservoir, Thermalito Forebay, and Thermalito Afterbay: Water Resources Recreation Report* (Bulletin 117-06). Another plan, FERC Order 2100-054, submitted June 1, 1993, and approved September 22, 1994, included additional recreation facilities and addressed concerns raised by local residents regarding recreation and fishery-related issues.

In 1995, the Lake Oroville Recreation Advisory Committee was established. This committee, comprised of local government, citizens' groups, and State agencies, was formed to advise DWR on recreation plan implementation, which included the following projects:

- ten floating campsites constructed and moored at various locations on the lake;
- an en route RV camping area added at the North Thermalito Forebay area;
- construction completed on a duck brood pond and restroom and picnic facilities at Thermalito Afterbay;
- buoys deployed around the water-ski slalom course;
- construction completed on the 41-mile bike trail main loop;
- construction completed on the Lime

Saddle Boat Ramp improvements, an equestrian campground at Loafer Creek Recreation Area, and lighting on Oroville Dam; and

- fishery and fishing improvements completed, including development of a fish management and stocking plan, stocking Chinook salmon, and development of fish shelters.

Most recreation and fish facilities have been completed; however, certain elements of the plan may require time extensions to complete.

## **Fish Plantings**

In 2005, the Department of Fish and Game continued its fish-planting activities at 10 of the 12 SWP facilities. Total plantings of trout was 522.3 thousand compared to the 531.6 thousand planted in 2004 (see Table 13-2).

## **Recreation Financing**

Previously, DWR reported capital costs allocated to fish and wildlife enhancement and recreation in Appendix D to Bulletin 132, *Costs of Recreation and Fish and Wildlife Enhancement*. This report is no longer mandated by the Legislature, and these capital costs, starting with fiscal year 2000-2001, are reported in this bulletin.

The financing of recreation and fish and wildlife enhancement in connection with the SWP was provided for by the Davis-Dolwig Act, Assembly Bill 12, and the Environmental Water Act, Assembly Bills 1441 and 1442. The Davis-Dolwig Act declared the Legislature's intent to provide DWR with General Fund appropriations for SWP fish and wildlife enhancement



**Table 13-2. Fish Planted in 2005 (Thousands)**

| <b>Location and Size</b>                | <b>Eagle Lake Trout</b> | <b>Brook Trout</b> | <b>Rainbow Trout</b> | <b>Brown Trout</b> | <b>Coho Salmon</b> | <b>Total</b> |
|-----------------------------------------|-------------------------|--------------------|----------------------|--------------------|--------------------|--------------|
| Antelope Lake<br>Adv. Fingerlings       | 25.1                    | Yearling<br>6.0    | Yearling<br>10.7     |                    |                    | 41.8         |
| Lake Davis<br>Catchables                | 47.2                    |                    |                      |                    |                    | 47.2         |
| Frenchman Reservoir<br>Adv. Fingerlings | 143.1                   |                    |                      |                    |                    |              |
| Catchables                              | 54.1                    |                    |                      |                    |                    | 197.2        |
| Lake Oroville<br>Fingerlings            | ---                     | ---                | No Fish Planted      |                    | ---                | ---          |
| Thermalito Forebay<br>Catchables        |                         |                    | 17.9                 |                    |                    | 17.9         |
| Lake Del Valle<br>Catchables            | ---                     | ---                | No Fish Planted      |                    | ---                | ---          |
| Los Banos Reservoir<br>Catchables       | 2.0                     |                    | 7.2                  |                    |                    | 9.2          |
| Pyramid Lake<br>Catchables              | 1.8                     |                    | 26.1                 |                    |                    | 27.9         |
| Castaic Lake<br>Catchables              |                         |                    | 57.2                 |                    |                    | 57.2         |
| Castaic Lagoon<br>Catchables            |                         |                    | 38.8                 |                    |                    | 38.8         |
| Silverwood Lake<br>Catchables           |                         |                    | 33.0                 |                    |                    | 33.0         |
| Lake Perris<br>Catchables               | 3.4                     |                    | 48.7                 |                    |                    | 52.1         |
| Lake Skinner <sup>a</sup><br>Catchables | ---                     | ---                | No Fish Planted      |                    | ---                | ---          |
| California Aqueduct                     | ---                     | ---                | No Fish Planted      |                    | ---                | ---          |
| <b>TOTAL</b>                            | <b>276.7</b>            | <b>6.0</b>         | <b>239.6</b>         |                    |                    | <b>522.3</b> |

<sup>a</sup> Included in the SWP fish planting program, but not an SWP facility.

and recreation. For fiscal years 1983-1984 through 2004-2005, no funds were appropriated for these purposes.

AB 12 provided for a \$5 million annual appropriation from tideland oil and gas revenues to be used for recreation, enhancement of fish and wildlife, and purchases of land for recreational uses. DWR received \$90 million from these revenues; there have been no appropriations since 1985.

Legislation enacted in 1989 (AB 1441 and AB 1442) offset a portion of the amount owed by the State for fish and wildlife enhancement and recreational costs against the amount the SWP owed to the California Water Fund (see Chapter 14, *Financial Analysis*, for more details).

### **Capital Cost Allocations**

Table 13-3 shows capital costs allocated to fish and wildlife enhancement and recreation and overall costs of lands acquired for recreation development through 2005. Costs have increased by \$814,225 since last reported. These costs are budgeted by DWR from funds available for financing project construction costs. Recreation and enhancement costs not reported in this table are budgeted by several State departments and are financed by appropriations from a variety of funds.

### **Accrued Interest Charges**

Table 13-4 details accrued interest charges included in the costs shown in Table 13-3, and reimbursements through December 2005. These interest accruals are calculated through December 31, 2005, on the portion of annual disbursements financed by the California Water

Resources Development Bond Fund, and based on the weighted average interest costs of Burns-Porter and Water System Revenue bonds sold to date. The reimbursements were included in DWR's budget as appropriations from the General Fund and are used by DWR to pay for operations, maintenance, power, and replacement costs associated with operating the SWP for fish and wildlife enhancement and recreation.

For a more detailed discussion of these legislative provisions, and DWR's procedures for reporting and tabulating recreation and enhancement costs, please see the last Appendix D (to Bulletins 132-98, 132-99, 132-00, and 132-01). This report can be found on the Web at <http://www.swpao.water.ca.gov/publications/index.cfm>.

**Table 13-3. Recreation and Enhancement Costs of the State Water Project**

| Facility                                                                    | Joint Costs Allocated to Recreation and Enhancement |                |                    |                   |                    |                    |                   |
|-----------------------------------------------------------------------------|-----------------------------------------------------|----------------|--------------------|-------------------|--------------------|--------------------|-------------------|
|                                                                             | 1952-2004 Updated                                   | 2005           | Subtotal           | Interest          | Total              | B132-05 Costs      | Increase/Decrease |
| Frenchman Dam and Lake (78.5%)                                              |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 102,997                                             | 0              | 102,997            | 2,097             | 105,094            | 105,094            | 0                 |
| All Other Funds                                                             | 2,839,227                                           | (16,485)       | 2,822,742          | 0                 | 2,822,742          | 2,736,262          | 86,480            |
| Antelope Dam and Lake (100%)                                                |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 1,033,261                                           | 0              | 1,033,261          | 113,788           | 1,147,049          | 1,147,049          | 0                 |
| All Other Funds                                                             | 4,625,735                                           | 0              | 4,625,735          | 0                 | 4,625,735          | 4,413,790          | 211,945           |
| Grizzly Valley Dam and Lake Davis (99.0%)                                   |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 4,003,092                                           | 0              | 4,003,092          | 486,754           | 4,489,846          | 4,489,846          | 0                 |
| All Other Funds                                                             | 2,602,805                                           | 0              | 2,602,805          | 0                 | 2,602,805          | 2,602,436          | 369               |
| San Luis Dam and Reservoir , O'Neill Forebay and Los Banos Reservoir (3.4%) |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 988,910                                             | 0              | 988,910            | 169,085           | 1,157,995          | 1,157,995          | 0                 |
| All Other Funds                                                             | 3,502,492                                           | 536            | 3,503,028          | 0                 | 3,503,028          | 3,501,256          | 1,772             |
| California Aqueduct Delta to Dos Amigos P.P. (3.4%)                         |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 4,467,667                                           | 0              | 4,467,667          | 897,406           | 5,365,073          | 5,365,073          | 0                 |
| All Other Funds                                                             | 4,549,626                                           | 16,074         | 4,565,700          | 0                 | 4,565,700          | 4,546,926          | 18,774            |
| Oroville Division (2.9%)                                                    |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 5,725,216                                           | 0              | 5,725,216          | 1,790,491         | 7,515,707          | 7,515,707          | 0                 |
| All Other Funds                                                             | 4,823,279                                           | 3,096          | 4,826,375          | 0                 | 4,826,375          | 4,822,640          | 3,735             |
| Del Valle Dam and Lake Del Valle (48.0%)                                    |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 10,546,762                                          | 0              | 10,546,762         | 6,813,560         | 17,360,322         | 17,360,322         | 0                 |
| All Other Funds                                                             | 4,184,406                                           | (2,716)        | 4,181,690          | 0                 | 4,181,690          | 4,184,520          | (2,830)           |
| California Aqueduct Dos Amigos P.P. to Termini (5.7%)                       |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 48,382,162                                          | 0              | 48,382,162         | 75,353,773        | 123,735,935        | 123,735,935        | 0                 |
| All Other Funds                                                             | 58,996,454                                          | 492,208        | 59,488,662         | 0                 | 59,488,662         | 58,994,736         | 493,926           |
| <i>Subtotal</i>                                                             | <i>161,374,091</i>                                  | <i>492,713</i> | <i>161,866,804</i> | <i>85,626,954</i> | <i>247,493,758</i> | <i>246,679,587</i> | <i>814,171</i>    |
| <b>Specific Costs of Acquiring Land for Recreation Development</b>          |                                                     |                |                    |                   |                    |                    |                   |
| Frenchman Dam and Lake                                                      |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 3,379                                               | 0              | 3,379              | 160               | 3,539              | 3,539              | 0                 |
| All Other Funds                                                             | 49,947                                              | 0              | 49,947             | 0                 | 49,947             | 49,947             | 0                 |
| Grizzly Valley Dam and Lake Davis                                           |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 204,475                                             | 0              | 204,475            | 17,573            | 222,048            | 222,048            | 0                 |
| All Other Funds                                                             | 554,260                                             | 0              | 554,260            | 0                 | 554,260            | 554,260            | 0                 |
| Abbey Bridge Dam and Reservoir                                              |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 9                                                   | 0              | 9                  | 0                 | 9                  | 9                  | 0                 |
| All Other Funds                                                             | 9,921                                               | 0              | 9,921              | 0                 | 9,921              | 9,921              | 0                 |
| San Luis Dam and Reservoir, O'Neill Forebay and Los Banos Reservoir         |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 395,284                                             | 0              | 395,284            | 33,467            | 428,751            | 428,751            | 0                 |
| All Other Funds                                                             | 415,610                                             | 0              | 415,610            | 0                 | 415,610            | 415,610            | 0                 |
| California Aqueduct Delta to Dos Amigos P.P.                                |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 461,086                                             | 0              | 461,086            | 158,456           | 619,542            | 619,542            | 0                 |
| All Other Funds                                                             | (137,494)                                           | 0              | (137,494)          | 0                 | (137,494)          | (137,494)          | 0                 |
| Oroville Division                                                           |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 7,809,509                                           | 0              | 7,809,509          | 3,673,041         | 11,482,550         | 11,482,550         | 0                 |
| All Other Funds                                                             | 3,100,347                                           | 0              | 3,100,347          | 0                 | 3,100,347          | 3,100,347          | 0                 |
| Del Valle Dam and Lake Del Valle                                            |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 519,425                                             | 0              | 519,425            | 448,292           | 967,717            | 967,717            | 0                 |
| All Other Funds                                                             | (32,200)                                            | 0              | (32,200)           | 0                 | (32,200)           | (32,200)           | 0                 |
| California Aqueduct Dos Amigos P.P. to Termini                              |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 478,971                                             | 0              | 478,971            | 915,217           | 1,394,188          | 1,394,188          | 0                 |
| All Other Funds                                                             | 398,349                                             | 0              | 398,349            | 0                 | 398,349            | 398,349            | 0                 |
| Castaic Dam and Lake                                                        |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 1,954,297                                           | 0              | 1,954,297          | 3,856,203         | 5,810,500          | 5,810,500          | 0                 |
| All Other Funds                                                             | 952,352                                             | 0              | 952,352            | 0                 | 952,352            | 952,325            | 27                |
| Cedar Springs Dam and Silverwood Lake                                       |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 424,966                                             | 0              | 424,966            | 817,173           | 1,242,139          | 1,242,139          | 0                 |
| All Other Funds                                                             | 370,164                                             | 0              | 370,164            | 0                 | 370,164            | 370,137            | 27                |
| Perris Dam and Lake Perris                                                  |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 1,022,313                                           | 0              | 1,022,313          | 2,033,799         | 3,056,112          | 3,056,112          | 0                 |
| All Other Funds                                                             | 4,939,979                                           | 0              | 4,939,979          | 0                 | 4,939,979          | 4,939,979          | 0                 |
| <i>Subtotal</i>                                                             | <i>23,894,949</i>                                   | <i>0</i>       | <i>23,894,949</i>  | <i>11,953,381</i> | <i>35,848,330</i>  | <i>35,848,276</i>  | <i>54</i>         |
| Total Recreation and Enhancement Costs                                      |                                                     |                |                    |                   |                    |                    |                   |
| California Water Resources Development Bond Fund                            | 88,523,781                                          | 0              | 88,523,781         | 97,580,335        | 186,104,116        | 186,104,116        | 0                 |
| All Other Funds                                                             | 96,745,259                                          | 492,713        | 97,237,972         | 0                 | 97,237,972         | 96,423,747         | 814,225           |
| <b>Total</b>                                                                | <b>185,269,040</b>                                  | <b>492,713</b> | <b>185,761,753</b> | <b>97,580,335</b> | <b>283,342,088</b> | <b>282,527,863</b> | <b>814,225</b>    |

Table 13-4. Calculation of Interest Accruals on California Water Resources Development Bond Fund Disbursements (in dollars at 4.608% per annum)

| 1952-2004                                                             |                   |                    |                   |                    |                     | 2005                                                        |                    |                   |                    |                     | 2006 Beginning of Year Balance to be Reimbursed |                    |                   |                    |                     |
|-----------------------------------------------------------------------|-------------------|--------------------|-------------------|--------------------|---------------------|-------------------------------------------------------------|--------------------|-------------------|--------------------|---------------------|-------------------------------------------------|--------------------|-------------------|--------------------|---------------------|
| Facility                                                              | Disbursements     |                    | Reimbursements    |                    | Interest<br>Accrual | Disbursements                                               |                    | Reimbursements    |                    | Interest<br>Accrual | Disbursements                                   |                    | Reimbursements    |                    | Interest<br>Accrual |
|                                                                       | WRD Bond<br>Funds | All Other<br>Funds | WRD Bond<br>Funds | All Other<br>Funds |                     | WRD Bond<br>Funds                                           | All Other<br>Funds | WRD Bond<br>Funds | All Other<br>Funds |                     | WRD Bond<br>Funds                               | All Other<br>Funds | WRD Bond<br>Funds | All Other<br>Funds |                     |
|                                                                       | \$                |                    |                   |                    |                     | Joint Costs Allocated to Recreation and Enhancement         |                    |                   |                    |                     |                                                 |                    |                   |                    |                     |
| Frenchman Dam and Lake                                                | 102,997           | 2,839,227          | 104,900           | 2,719,468          | 2,097               | 0                                                           | (16,485)           | 0                 | 0                  | 0                   | 102,997                                         | 2,822,742          | 104,900           | 2,719,468          | 2,097               |
| Antelope Dam and Lake                                                 | 1,033,261         | 4,625,735          | 1,140,322         | 4,478,932          | 113,788             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 1,033,261                                       | 4,625,735          | 1,140,322         | 4,478,932          | 113,788             |
| Grizzly Valley Dam and Lake<br>Davis                                  | 4,003,092         | 2,602,805          | 4,444,594         | 2,568,667          | 486,754             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 4,003,092                                       | 2,602,805          | 4,444,594         | 2,568,667          | 486,754             |
| Sisk Dam, San Luis Res.,<br>O'Neill Forebay, & Los Banos<br>Reservoir | 988,910           | 3,502,492          | 1,938,244         | 2,725,578          | 169,085             | 0                                                           | 536                | 0                 | 0                  | 0                   | 988,910                                         | 3,503,028          | 1,938,244         | 2,725,578          | 169,085             |
| California Aqueduct Delta to<br>Dos Amigos P.P.                       | 4,467,667         | 4,549,626          | 5,267,351         | 4,092,435          | 897,406             | 0                                                           | 16,074             | 0                 | 0                  | 0                   | 4,467,667                                       | 4,565,700          | 5,267,351         | 4,092,435          | 897,406             |
| Oroville Division                                                     | 5,725,216         | 4,823,279          | 7,324,529         | 4,570,269          | 1,790,491           | 0                                                           | 3,096              | 0                 | 0                  | 0                   | 5,725,216                                       | 4,826,375          | 7,324,529         | 4,570,269          | 1,790,491           |
| Del Valle Dam and Lake<br>Del Valle                                   | 10,546,762        | 4,184,406          | 16,463,934        | 3,130,016          | 6,813,560           | 0                                                           | (2,716)            | 0                 | 0                  | 0                   | 10,546,762                                      | 4,181,690          | 16,463,934        | 3,130,016          | 6,813,560           |
| California Aqueduct Dos<br>Amigos P.P. to Termini                     | 48,382,162        | 58,996,454         | 113,035,518       | 49,410,851         | 75,353,773          | 0                                                           | 492,208            | 0                 | 0                  | 0                   | 48,382,162                                      | 59,488,662         | 113,035,518       | 49,410,851         | 75,353,773          |
| Subtotal                                                              | 75,250,067        | 86,124,024         | 149,719,392       | 73,696,216         | 85,626,954          | 0                                                           | 492,713            | 0                 | 0                  | 0                   | 75,250,067                                      | 86,616,737         | 149,719,392       | 73,696,216         | 85,626,954          |
|                                                                       |                   |                    |                   |                    |                     | Specific Costs of Acquiring Land for Recreation Development |                    |                   |                    |                     |                                                 |                    |                   |                    |                     |
| Frenchman Dam and Lake                                                | 3,379             | 49,947             | 3,520             | 49,947             | 160                 | 0                                                           | 0                  | 0                 | 0                  | 0                   | 3,379                                           | 49,947             | 3,520             | 49,947             | 160                 |
| Grizzly Valley Dam and<br>Lake Davis                                  | 204,475           | 554,260            | 220,423           | 554,244            | 17,573              | 0                                                           | 0                  | 0                 | 0                  | 0                   | 204,475                                         | 554,260            | 220,423           | 554,244            | 17,573              |
| Abbey Bridge Dam and<br>Reservoir                                     | 9                 | 9,921              | 9                 | 9,921              | 0                   | 0                                                           | 0                  | 0                 | 0                  | 0                   | 9                                               | 9,921              | 9                 | 9,921              | 0                   |
| Sisk Dam, San Luis Res.,<br>O'Neill Forebay, & Los Banos<br>Reservoir | 395,284           | 415,610            | 425,700           | 415,610            | 33,467              | 0                                                           | 0                  | 0                 | 0                  | 0                   | 395,284                                         | 415,610            | 425,700           | 415,610            | 33,467              |
| California Aqueduct Delta to<br>Dos Amigos P.P.                       | 461,086           | (137,494)          | 603,887           | (137,494)          | 158,456             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 461,086                                         | (137,494)          | 603,887           | (137,494)          | 158,456             |
| Oroville Division                                                     | 7,809,509         | 3,100,347          | 11,028,039        | 649,733            | 3,673,041           | 0                                                           | 0                  | 0                 | 0                  | 0                   | 7,809,509                                       | 3,100,347          | 11,028,039        | 649,733            | 3,673,041           |
| Del Valle Dam and Lake<br>Del Valle                                   | 519,425           | (32,200)           | 917,078           | (32,200)           | 448,292             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 519,425                                         | (32,200)           | 917,078           | (32,200)           | 448,292             |
| California Aqueduct Dos<br>Amigos P.P. to Termini                     | 478,971           | 398,349            | 1,271,912         | 398,349            | 915,217             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 478,971                                         | 398,349            | 1,271,912         | 398,349            | 915,217             |
| Castaic Dam and Lake                                                  | 1,954,297         | 952,352            | 5,291,258         | 951,070            | 3,856,203           | 0                                                           | 0                  | 0                 | 0                  | 0                   | 1,954,297                                       | 952,352            | 5,291,258         | 951,070            | 3,856,203           |
| Cedar Springs Dam and<br>Silverwood Lake                              | 424,966           | 370,164            | 1,132,207         | 370,137            | 817,173             | 0                                                           | 0                  | 0                 | 0                  | 0                   | 424,966                                         | 370,164            | 1,132,207         | 370,137            | 817,173             |
| Perris Dam and Lake Perris                                            | 1,022,313         | 4,939,979          | 2,780,487         | 4,867,247          | 2,033,799           | 0                                                           | 0                  | 0                 | 0                  | 0                   | 1,022,313                                       | 4,939,979          | 2,780,487         | 4,867,247          | 2,033,799           |
| Subtotal                                                              | 13,273,714        | 10,621,235         | 23,674,520        | 8,096,564          | 11,953,381          | 0                                                           | 0                  | 0                 | 0                  | 0                   | 13,273,714                                      | 10,621,235         | 23,674,520        | 8,096,564          | 11,953,381          |
| Total                                                                 | 88,523,781        | 96,745,259         | 173,393,912       | 81,792,780         | 97,580,335          | 0                                                           | 492,713            | 0                 | 0                  | 0                   | 88,523,781                                      | 97,237,972         | 173,393,912       | 81,792,780         | 97,580,335          |



## Chapter 14

# Financial Analysis

**T***he California Aqueduct delivers water for irrigation and urban use, benefiting more than 24 million Californians.*

## Significant Events in 2005

**O**n July 7, the Department of Water Resources issued \$112.390 million of Water System Revenue bonds, Series AD. The proceeds were pre-sold on June 14 to refinance \$104.750 million of previously issued bonds, finance long-term construction expenditures, and pay bond financing costs.

**I**nformation for this chapter was provided by the State Water Project Analysis Office in conjunction with the Division of Fiscal Services.

**T**his chapter presents both a summary and a detailed explanation of State Water Project (SWP) current financial analysis, capital costs and requirements, revenues and expenses, and bond activities for years 2006 through 2020.

The Department of Water Resources (DWR) performs financial analysis annually to ensure that the SWP financing program will have sufficient funds to meet construction obligations; project operation, maintenance, power, and replacement costs; and debt service payments for bonds expended for construction. The results of the current financial analysis, dated December 31, 2005, are presented in Tables 14-1 and 14-2 located at the end of this chapter.

Future contingencies may change the financial analysis, some of which include:

- alterations in schedules of currently planned construction for future facilities;
- changes in economic conditions, including changes in interest rates and in SWP contractor Table A amounts due to changes in amounts of water needed, conserved, or reclaimed;
- completion of Delta transfer facilities;
- development of additional sources of water not foreseen at this time;
- deviations from the assumptions regarding actual rates of price escalations for future construction from those currently assumed for cost estimates;
- increases in capital costs related to additional conservation facilities; and
- outcome of lawsuits now pending before the courts.

## Capital Requirements and Financing

In conducting the current analysis, DWR projected that future construction costs through the year 2020 plus reimbursement of \$65 million interim financing for prior expenditures will total \$1.12 billion. Special capital requirements for revenue bond financing of these construction costs are projected at \$124 million for a total capital requirement of \$1.31 billion. This projection includes construction and financing costs for the following significant SWP facilities planned for completion by 2020:

- Interim South Delta facilities;
- extension of the East Branch of the California Aqueduct;
- Phase II enlargement of the East Branch;
- enlargement of the South Bay Aqueduct; and
- a new intake at Clifton Court Forebay.

Most of these capital requirements will be financed from the projected sale of \$1.24 billion of revenue bonds. The remaining \$67 million will be financed from capital resources revenues and the transfer of excess revenues not needed for operation costs or debt service.

The analysis of capital requirements and financing presented in Table 14-1

does not include the costs and financing of all facilities needed to develop the remaining yield necessary to meet the total 4.2 million af contractual commitment to long-term SWP water contractors. Table 14-1 also does not include the costs of associated work essential for realizing full benefits from the SWP, but financed and constructed by local interests or State agencies other than DWR. Those facilities include on-shore recreational developments at SWP facilities and local distribution facilities.

The allocation of capital expenditures for various SWP purposes is detailed in Table 14-3.

### Capital Requirements

Lines 1 through 20 in Table 14-1 show actual and projected SWP capital requirements through 2020. Estimates of future capital expenditures include allowances for construction cost escalation of 3 percent per year from 2006 through 2020. Right-of-way costs are escalated at 4 percent per year from 2006 through 2020. Capital expenditures for the SWP also include requirements other than those for construction, such as disbursements made as part of the Davis-Grunsky Act Program (Line 16) and special capital requirements under revenue bond financing (Line 17). DWR will decide whether to construct facilities only after examining alternatives and completing environmental documentation and other review processes.

*Line 1, Initial Project Facilities*, includes only those facilities completed before 1974 (see Bulletin 132-74, Chapter 2). Additional costs after 1973, and estimated

costs of remaining work on the initial SWP facilities, are not included.

*Line 2, North Bay Aqueduct*, consists of the estimated costs for improvements and the historical costs for Phase II. Phase II, which became operational in May 1988, connected with the Phase I facilities, which were completed in 1968 (Phase I costs are included in the initial project facilities discussed in Line 1). Phase II included costs for pipelines, pumping plants, and a small reservoir necessary to divert water from the western Delta to Napa and Solano counties for urban use. The improvements consist of replacing the existing tank with two five million gallon tanks. Construction is anticipated to begin in 2007 and to be completed in May 2009.

*Line 3, Delta and Suisun Marsh Facilities*, shows historical costs in Column 1 that include planning for general Delta facilities and the previously planned peripheral canal and overland water delivery facilities for the western Delta. Also included are historical planning costs for Suisun Marsh as well as construction costs for the Suisun Marsh Salinity Control Gates and an access road. The projected amounts include projected planning costs plus projected costs for constructing four permanent barriers in the Delta.

*Line 4, Final Four Units at Banks Pumping Plant*, includes costs of the final four 1,067-cfs units, which became operational in spring 1992.

*Line 5, Coastal Branch Aqueduct*, includes all costs for the planning, design, and construction of Phase II of the Coastal Branch of the California Aqueduct. Phase II construction began in October 1993 and



**Table 14-3. Allocation of Capital Expenditures (Thousands of Dollars)**

| Facilities and Construction Divisions | Expenditures Incurred Through 2005 | Future Expenditures | Total     | Preliminary Allocation Among Project Purposes |                            |                                              |                    |
|---------------------------------------|------------------------------------|---------------------|-----------|-----------------------------------------------|----------------------------|----------------------------------------------|--------------------|
|                                       |                                    |                     |           | Water Supply and Power Generation             | Flood Control <sup>a</sup> | Recreation and Fish and Wildlife Enhancement | Other <sup>b</sup> |
| Project Construction Expenditures     |                                    |                     |           |                                               |                            |                                              |                    |
| Upper Feather Division                | 18,275                             | 1                   | 18,276    | 1,411                                         | 0                          | 16,865                                       | 0                  |
| Oroville Division                     | 591,016                            | 2,771               | 593,787   | 500,240                                       | 71,792                     | 21,755                                       | 0                  |
| Delta Facilities Division             | 400,457                            | 41,760              | 442,217   | 395,366                                       | 0                          | 46,851                                       | 0                  |
| North Bay Aqueduct                    | 94,579                             | 10,866              | 105,445   | 105,445                                       | 0                          | 0                                            | 0                  |
| South Bay Aqueduct                    | 118,986                            | 124,400             | 243,386   | 219,970                                       | 8,189                      | 15,227                                       | 0                  |
| California Aqueduct                   |                                    |                     |           |                                               |                            |                                              |                    |
| North San Joaquin Division            | 217,969                            | 13,729              | 231,698   | 223,526                                       | 0                          | 8,172                                        | 0                  |
| San Luis Division                     | 266,185                            | 4,247               | 270,431   | 258,018                                       | 0                          | 12,413                                       | 0                  |
| South San Joaquin Division            | 288,752                            | 4,421               | 293,173   | 275,558                                       | 0                          | 17,614                                       | 0                  |
| Tehachapi Division                    | 324,817                            | 12,995              | 337,812   | 318,744                                       | 0                          | 19,068                                       | 0                  |
| Mojave Division                       | 290,180                            | 15,678              | 305,858   | 267,026                                       | 0                          | 38,832                                       | 0                  |
| Santa Ana Division                    | 259,116                            | 49,589              | 308,705   | 273,930                                       | 0                          | 34,775                                       | 0                  |
| West Branch                           | 470,591                            | 5,883               | 476,474   | 444,727                                       | 0                          | 31,747                                       | 0                  |
| Coastal Branch                        | 490,694                            | 4,213               | 494,907   | 494,907                                       | 0                          | 0                                            | 0                  |
| Subtotal, California Aqueduct         | 2,608,304                          | 110,754             | 2,719,058 | 2,556,437                                     | 0                          | 162,621                                      | 0                  |
| Other Project Facilities              |                                    |                     |           |                                               |                            |                                              |                    |
| Small Hydroelectric Power             |                                    |                     |           |                                               |                            |                                              |                    |
| Generating Facilities                 | 97,368                             | 0                   | 97,368    | 97,368                                        | 0                          | 0                                            | 0                  |
| Off-Aqueduct Power                    |                                    |                     |           |                                               |                            |                                              |                    |
| Generating Facilities                 | 455,369                            | 30,544              | 485,913   | 485,913                                       | 0                          | 0                                            | 0                  |
| East Branch Enlargement               | 453,459                            | 455,771             | 909,230   | 909,230                                       | 0                          | 0                                            | 0                  |
| East Branch Extension                 | 128,473                            | 177,930             | 306,403   | 306,403                                       | 0                          | 0                                            | 0                  |
| Coastal Power Allocation              | 30,708                             | 0                   | 30,708    | 30,708                                        | 0                          | 0                                            | 0                  |
| Agricultural Drainage Facilities      | 66,440                             | 50,880              | 117,320   | 0                                             | 0                          | 0                                            | 117,320            |
| Planning and Preoperations            | 145,886                            | 61,615              | 207,501   | 207,501                                       | 0                          | 0                                            | 0                  |
| Unassigned/Miscellaneous              | 101,448                            | 50,891              | 152,339   | 0                                             | 0                          | 0                                            | 152,339            |
| Subtotal, Project Construction        |                                    |                     |           |                                               |                            |                                              |                    |
| Expenditures                          | 5,310,768                          | 1,118,183           | 6,428,951 | 5,815,992                                     | 79,981                     | 263,319                                      | 269,659            |
| Other Capital Requirements            |                                    |                     |           |                                               |                            |                                              |                    |
| Davis-Grunsky Act Program             | 130,000                            | 0                   | 130,000   | 0                                             | 0                          | 0                                            | 130,000            |
| Total Capital Expenditures            | 5,440,768                          | 1,118,183           | 6,558,951 | 5,815,992                                     | 79,981                     | 263,319                                      | 399,659            |

<sup>a</sup>Reflects DWR's allocation to this purpose, irrespective of federal payments.

<sup>b</sup>Includes costs currently unassigned to purpose, planning costs of deleted features of project facilities, initial costs of inventoried items, and costs assigned to the Davis-Grunsky Act Program.

was completed in 1997. Water deliveries from Phase II facilities began in July 1997.

*Line 6, West Branch Aqueduct*, shows costs for all facilities on the West Branch except Warne Power Plant, whose costs are included in Line 11.

*Line 7, East Branch Enlargement*, includes expenditures for Phases I and II of the East Branch Enlargement. Phase I included the enlargement share of power plant costs at Mojave Siphon and Devil Canyon. (The remaining power plant costs are included in Line 11.) East Branch Enlargement costs for Phase I, by facility, are presented in Table 14-4. Costs for Alamo Power Plant consist of expenditures for Unit 1 facilities allocated to enlargement. Construction of Unit 2 was deferred.

Construction of Phase II of the enlargement is anticipated to begin in March 2007. Project costs include raising the canal embankment and concrete lining, constructing additional siphon barrels, adding bays to check structures, constructing Unit 2 at Alamo Power Plant, and adding two pump/motor units and a discharge line at Pearblossom Pumping Plant.

All costs in Line 7 are allocated to and repaid by the seven Southern California contractors participating in the East Branch Enlargement.

*Line 8, East Branch Improvements*, shows all aqueduct costs on the East Branch not allocated to the enlargement project. Those costs include improvements constructed concurrently with the enlargement work, the reconstruction of the San Bernardino Tunnel Intake,

and the construction of the Tehachapi East Afterbay. Costs for power plant construction at Alamo, Mojave Siphon, and Devil Canyon are not included in this line.

*Line 9, East Branch Extension*, shows expenditures for Phase I of the extension of the East Branch of the California Aqueduct. The East Branch Extension extends the California Aqueduct east from the Devil Canyon Power Plant to a terminus at Noble Creek near Beaumont in Riverside County. The extension provides water service to the San Geronio Pass Water Agency and the San Bernardino Valley Municipal Water District. Construction began in February 1999 and was completed in 2003. Construction of Phase II is anticipated to commence in 2008. All costs in Line 9 will be allocated to and repaid by the two participating contractors.

*Line 10, South Bay Aqueduct Enlargement*, shows expenditures for providing additional capacity required to meet increases in water demands for the service area of Alameda County Flood Control and Water Conservation District, Zone 7, and increasing the existing capacity of the South Bay Aqueduct to its original design capacity. Construction includes creating a third discharge line, creating a 500 af Dyer Reservoir, modifying the canal, and enlarging the South Bay Pumping Plant. Construction is expected to be completed in 2009.

*Line 11, Power Generation and Transmission Facilities*, does not include the East Branch Enlargement share of costs for Alamo, Mojave Siphon, and Devil Canyon power plants shown in Line 7 of Table 14-1. The capital costs for facilities included in Line 11 are shown in Table 14-5.

*Line 12, Additional Conservation Facilities*, shows projected costs to plan and study additional conservation facilities. Specific planning activities and projected spending amounts for 2006 through 2020 are shown in Table 14-6. Expenditures for these items are being reviewed. Construction costs of additional conservation facilities are not included in the financial analysis.

Line 12 does not include CALFED program costs. CALFED expenditures for preliminary planning and environmental impact report preparation are currently financed by appropriations from the General Fund. DWR assumes that future costs of the CALFED program will continue to be financed from the General Fund.

*Line 13, Agricultural Drainage Facilities*, includes projected costs of the Agricultural Drainage Program. The activities in this program are monitoring, evaluating, reducing, and treating drainage, as well as investigating treatment and reuse of drainage water.

DWR assumes that future costs of the drainage program will be financed by revenue transfers (Line 35).

*Line 14, Other Costs*, includes items such as general design and construction costs, costs of completing operation and maintenance facilities, and costs of other completion activities for the initial facilities of the California Aqueduct. Portions of those costs ultimately will be allocated to California Aqueduct units described in the preceding paragraphs.

*Line 15, Subtotal Project Construction Expenditures*, is the total of Lines 1 through 14.

*Line 16, Davis-Grunsky Act Program Costs*, shows costs of the Davis-Grunsky Act Program, a financial assistance program to provide grants and loans to public agencies for constructing local water projects.

As of December 31, 2005, DWR had disbursed \$130 million (including \$8.5 million for administration) in grants and loans to local agencies throughout the State.

*Line 17, Special Capital Requirements Under Revenue Bond Financing*, presents special capital requirements at the time revenue bonds are sold. The financial analysis assumes that proceeds from any future revenue bonds will be used to pay for bond discounts, bond issuance costs, and debt service reserve requirements.

Information about the application of proceeds to these special requirements for actual and assumed revenue bond sales is presented in Table 14-7.

*Line 18, Total Capital Requirements*, is the total of Lines 15, 16, and 17.

*Line 19, Power Facilities Capital Requirements*, shows the total capital requirements for power facilities included in Line 18.

*Line 20, Water Facilities Capital Requirements*, shows the total capital requirements for water facilities included in Line 18.

**Table 14-4. East Branch Enlargement Capital Costs by Facility**

| Facility                                        | Amount<br>(Millions of Dollars) |
|-------------------------------------------------|---------------------------------|
| Aqueduct and Siphons                            | 128.1                           |
| Pearblossom Pumping Plant                       | 70.1                            |
| Alamo Power Plant                               | 5.0                             |
| Mojave Siphon Power Plant                       | 47.3                            |
| Devil Canyon Power Plant and<br>Second Afterbay | 202.9                           |
| <b>Total</b>                                    | <b>453.4</b>                    |

**Table 14-5. Estimated Capital Costs for Power Generation and Transmission Facilities**

| Facility                  | Amount<br>(Millions of Dollars) |
|---------------------------|---------------------------------|
| <b>Power Plants</b>       |                                 |
| Reid Gardner, Unit 4      | 308.5                           |
| Bottle Rock               | 120.9                           |
| South Geysers             | 49.6                            |
| Devil Canyon              | 36.8                            |
| Warne                     | 84.5                            |
| Alamo                     | 44.9                            |
| Mojave Siphon             | 38.4                            |
| Thermalito Diversion Dam  | 14.1                            |
| <i>Subtotal</i>           | <i>697.7</i>                    |
| <b>Transmission Lines</b> |                                 |
| Midway-Wheeler Ridge      | 10.7                            |
| Geysers-Lakeville         | 6.9                             |
| <b>Total</b>              | <b>715.3</b>                    |

**Table 14-6. Estimated Future Costs for Planning Additional Conservation Facilities**

| Activity                | Amount<br>(Millions of Dollars) |
|-------------------------|---------------------------------|
| SWP Future Water Supply | 41.8                            |
| Other Planning Costs    | 19.8                            |
| <b>Total</b>            | <b>61.6</b>                     |

## Capital Financing

The SWP was constructed with three general types of financing: Burns-Porter Act, revenue bonds, and capital resources. Lines 21 through 36 of Table 14-1 present specific information about those sources of financing.

### *Burns-Porter Act*

Burns-Porter financing is derived from the sale of California Water Resources Development Bonds (general obligation bonds) and State Tideland Oil Revenues deposited in the California Water Fund as authorized by the Burns-Porter Act (California Water Code Sections 12930-12944), approved by voters in November 1960. The Burns-Porter Act authorized an issuance of \$1.75 billion of general obligation State bonds, which are repaid by revenues received according to the water supply contracts. Of that authorization, \$130 million were reserved specifically for the Davis-Grunsky Act Program.

Proceeds from the sale of general obligation bonds were deposited in the California Water Resources Development Bond Fund—Bond Proceeds Account, from which monies were expended only for the construction of SWP facilities and for the Davis-Grunsky Act Program. Approximately 29 percent of the expenditures through 2005 for construction and the Davis-Grunsky Act Program were financed with general obligation bonds.

Monies deposited in the California Water Fund were appropriated for purposes outlined in the Burns-Porter Act. Such deposits were derived from a portion of the State Tideland Oil Revenues, according to a continuing authorization. The

California Water Fund was used to finance \$508 million, or approximately 8 percent, of the construction expenditures through 2005.

### *Revenue Bonds*

Revenue bond financing is derived from the sale of revenue bonds as authorized by the Central Valley Project Act (California Water Code Sections 11100-11925). DWR's authority to issue revenue bonds was confirmed by a decision of the California Supreme Court in 1963 (*Warne v. Harkness*, 60 Cal. 2d 579).

Proceeds from the sale of revenue bonds are deposited in the Central Valley Water Project Construction Fund, from which money is expended only for purposes specified in the resolution authorizing each bond sale. Those purposes, in addition to paying construction, planning, and right-of-way costs, may include funding the Debt Service Reserve Account, paying interest on bonds, and paying water system operating expenses during a specified period.

As of December 31, 2005, DWR had sold \$7.0 billion of revenue bonds. That amount includes \$3.6 billion of refunded bonds, leaving a total principal obligation of \$3.4 billion.

### *Capital Resources*

Capital resources financing is derived from payments and appropriations (including a portion of the State Tideland Oil Revenues) authorized by a variety of special contracts, cost-sharing agreements, and legislative actions concerning the SWP, plus accrued interest on these funds. Capital resources revenues are deposited in the Central Valley Water Project Construction Fund and may be expended

Table 14-7. Application of Revenue Bond Proceeds (Millions of Dollars)

| Bond Series <sup>a</sup>             | Construction Expenditures | Other Capital Requirements    |                      |                             |                                                 |                | Total Principal Amount of Bonds |
|--------------------------------------|---------------------------|-------------------------------|----------------------|-----------------------------|-------------------------------------------------|----------------|---------------------------------|
|                                      |                           | Reimbursement of General Fund | Capitalized Interest | Capitalized Operating Costs | Bond Financing and Refunding Costs <sup>b</sup> | Subtotal       |                                 |
| Oroville                             | 218.0                     | 2.6                           | 19.9                 | 1.5                         | 3.0                                             | 27.0           | 245.0                           |
| Devil Canyon-Castaic                 | 126.4                     | 0.0                           | 10.0                 | 0.7                         | 2.1                                             | 12.8           | 139.2                           |
| Pyramid Series A                     | 74.0                      | 0.0                           | 19.2                 | 1.0                         | 1.6                                             | 21.8           | 95.8                            |
| Reid Gardner Series B                | 146.1                     | 0.0                           | 41.9                 | 0.0                         | 12.0                                            | 53.9           | 200.0                           |
| Reid Gardner Series C                | 91.1                      | 0.0                           | 17.9                 | 7.9                         | 8.1                                             | 33.9           | 125.0                           |
| Small Hydro-South Geysers Series D   | 49.6                      | 0.0                           | 19.9                 | 0.0                         | 5.5                                             | 25.4           | 75.0                            |
| Bottle Rock Series E                 | 96.9                      | 0.0                           | 22.0                 | 3.7                         | 2.4                                             | 28.1           | 125.0                           |
| Alamo-South Geysers Series F         | 59.1                      | 0.0                           | 14.2                 | 0.0                         | 1.7                                             | 15.9           | 75.0                            |
| Reid Gardner Series G                | 1.6                       | 0.0                           | 0.0                  | 0.0                         | 237.9                                           | 237.9          | 239.5                           |
| Power Facilities Series H            | 22.2                      | 0.0                           | 0.0                  | 0.0                         | 184.5                                           | 184.5          | 206.7                           |
| East Branch Enlargement Series A     | 108.3                     | 0.0                           | 12.6                 | 0.0                         | 11.1                                            | 23.7           | 132.0                           |
| Water System Facilities Series B     | 97.4                      | 0.0                           | 0.0                  | 0.0                         | 2.6                                             | 2.6            | 100.0                           |
| Water System Facilities Series C     | 0.6                       | 0.0                           | 0.0                  | 0.0                         | 8.4                                             | 8.4            | 9.0                             |
| Water System Facilities Series D     | 95.9                      | 0.0                           | 2.9                  | 0.0                         | 1.2                                             | 4.1            | 100.0                           |
| Water System Facilities Series E     | 0.4                       | 0.0                           | 0.0                  | 0.0                         | 8.6                                             | 8.6            | 9.0                             |
| Water System Facilities Series F     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 160.0                                           | 160.0          | 160.0                           |
| Water System Facilities Series G     | 86.8                      | 0.0                           | 4.6                  | 0.0                         | 8.6                                             | 13.2           | 100.0                           |
| Water System Facilities Series H     | 85.5                      | 0.0                           | 5.7                  | 0.0                         | 8.8                                             | 14.5           | 100.0                           |
| Water System Facilities Series I     | 158.9                     | 0.0                           | 5.8                  | 0.0                         | 15.3                                            | 21.1           | 180.0                           |
| Water System Facilities Series J     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 649.8                                           | 649.8          | 649.8                           |
| Water System Facilities Series K     | 88.6                      | 0.0                           | 3.1                  | 0.0                         | 8.3                                             | 11.4           | 100.0                           |
| Water System Facilities Series L     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 537.8                                           | 537.8          | 537.8                           |
| Water System Facilities Series M     | 166.3                     | 0.0                           | 9.9                  | 0.0                         | 13.8                                            | 23.7           | 190.0                           |
| Water System Facilities Series N     | 137.4                     | 0.0                           | 6.0                  | 0.0                         | 8.6                                             | 14.6           | 152.0                           |
| Water System Facilities Series O     | 156.5                     | 0.0                           | 8.4                  | 0.0                         | 170.1                                           | 178.5          | 335.0                           |
| Water System Facilities Series P     | 141.6                     | 0.0                           | 5.2                  | 0.0                         | 13.2                                            | 18.4           | 160.0                           |
| Water System Facilities Series Q     | 135.0                     | 0.0                           | 8.0                  | 0.0                         | 123.6                                           | 131.6          | 266.6                           |
| Water System Facilities Series R     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 20.7                                            | 20.7           | 20.7                            |
| Water System Facilities Series S     | 78.2                      | 0.0                           | 5.8                  | 0.0                         | 116.2                                           | 122.0          | 200.2                           |
| Water System Facilities Series T     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 135.7                                           | 135.7          | 135.7                           |
| Water System Facilities Series U     | 98.7                      | 0.0                           | 5.3                  | 0.0                         | 103.2                                           | 108.5          | 207.2                           |
| Water System Facilities Series V     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 20.6                                            | 20.6           | 20.6                            |
| Water System Facilities Series W     | 41.0                      | 0.0                           | 1.3                  | 0.0                         | 218.7                                           | 220.0          | 261.0                           |
| Water System Facilities Series X     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 160.2                                           | 160.2          | 160.2                           |
| Water System Facilities Series Y     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 329.9                                           | 329.9          | 329.9                           |
| Water System Facilities Series Z     | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 170.7                                           | 170.7          | 170.7                           |
| Water System Facilities Series AA    | 0.0                       | 0.0                           | 0.0                  | 0.0                         | 108.7                                           | 108.7          | 108.7                           |
| Water System Facilities Series AB    | 92.2                      | 0.0                           | 3.9                  | 0.0                         | 93.6                                            | 97.5           | 189.7                           |
| Water System Facilities Series AC    | 13.7                      | 0.0                           | 0.6                  | 0.0                         | 257.7                                           | 258.3          | 272.0                           |
| Water System Facilities Series AD    | 12.4                      | 0.0                           | 0.9                  | 0.0                         | 99.1                                            | 100.0          | 112.4                           |
| Subtotal                             | 2,680.4                   | 2.6                           | 255.0                | 14.8                        | 4,043.6                                         | 4,316.0        | 6,996.4 <sup>c</sup>            |
| Future East Branch Extension Bonds   | 180.0                     | 0.0                           | 9.0                  | 0.0                         | 11.0                                            | 20.0           | 200.0                           |
| Future So. Bay AB. Enlargement Bonds | 126.9                     | 0.0                           | 6.3                  | 0.0                         | 7.7                                             | 14.0           | 140.9                           |
| Future Water System Facilities Bonds | 808.5                     | 0.0                           | 40.4                 | 0.0                         | 49.4                                            | 89.8           | 898.3                           |
| <b>Total</b>                         | <b>3,795.8</b>            | <b>2.6</b>                    | <b>310.7</b>         | <b>14.8</b>                 | <b>4,111.7</b>                                  | <b>4,439.8</b> | <b>8,235.6</b>                  |

<sup>a</sup>Actual bond issue for all except Future Water System facilities and Future East Branch Extension bonds.<sup>b</sup>Bond financing and refunding costs include funds applied to debt service reserve requirements.<sup>c</sup>Includes \$3,581.9 million of refunded principal, leaving a net principal obligation of \$3,414.5 million.

for interest on general obligation bonds and costs of constructing SWP facilities.

According to DWR's financial management policy, the capital resources revenues are used first to cover any general obligation bond debt service that exceeds available revenues.

## Capital Financing Sources

Capital financing sources include power revenue bonds, East Branch Enlargement bonds, East Branch Extension bonds, South Bay Aqueduct Enlargement bonds, water system facilities bonds, initial project facilities bonds, bond proceeds from the Davis-Grunsky Act Program, California Water Fund monies, and capital resources revenues.

*Line 21, Power Revenue Bonds through Series H*, includes the proceeds applied from power revenue bonds for Oroville, Devil Canyon, Castaic, Warner, Reid Gardner, Bottle Rock, Alamo, South Geysers, and small hydro projects.

No future power revenue bond sales are projected for this financial analysis.

*Line 22, East Branch Enlargement, Current Bonds*, shows that \$474 million of Water System Revenue Bond proceeds have been applied to the East Branch Enlargement project through December 31, 2005. Of this total amount, \$417 million was used for construction expenditures and \$57 million for bond discounts, interest costs, and debt service reserves.

No future East Branch Enlargement revenue bond sales are projected for the financial analysis.

*Line 23, East Branch Extension, Current Bonds*, shows that \$140 million of Water System Revenue Bond proceeds had been spent through December 31, 2005.

*Line 24, East Branch Extension, Future Bonds*, shows DWR's estimate of \$200 million of additional bonds required to complete construction of the East Branch Extension and to pay for bond discounts, capitalized interest, and debt service reserve requirements.

*Line 25, South Bay Aqueduct Enlargement, Current Bonds*, shows that \$17 million of Water System Revenue Bond proceeds had been spent through December 31, 2005.

*Line 26, South Bay Aqueduct Enlargement, Future Bonds*, shows DWR's estimate of \$141 million of bonds required to complete construction of the South Bay Aqueduct Enlargement and to pay for bond discounts, capitalized interest, and debt service reserve requirements.

*Line 27, Water System Facilities, Current Bonds*, shows that through December 31, 2005, \$1.5 billion of proceeds from Water System Revenue Bonds, Series A through Series AD, were applied to SWP projects other than the East Branch Enlargement, the East Branch Extension, and the South Bay Aqueduct Enlargement. Of this total amount, \$1.3 billion was used to pay for construction expenditures, and \$0.2 billion was used to pay for bond discounts, capitalized interest, and debt service reserve requirements.

*Line 28, Water System Facilities, Future Bonds*, shows that \$898 million of future water revenue bonds are needed to provide \$809 million for construction

of SWP water system facilities and \$89 million for bond discounts, interest costs, and debt service reserve requirements.

*Line 29, Subtotal, Water Revenue Bonds*, is the total of Lines 22 through 28.

*Line 30, Initial Project Facilities Bond Proceeds*, shows the amount of general obligation bonds sold to provide financing costs for initial SWP facilities and for costs of planning certain additional conservation facilities.

Financing initial facilities from general obligation bonds was completed in mid-1972 and totaled \$1.444 billion—\$1.750 billion Burns-Porter Act authorization less \$130 million reserved for the Davis-Grunsky Act Program and \$176 million “offset” for additional conservation facilities. (The Burns-Porter Act provides that to the extent California Water Fund monies are expended, an equal amount of general obligation bonds are reserved [offset] for financing the construction of additional conservation facilities in certain watersheds.)

In mid-1972, the reservation of offset bonds was effectively limited to \$176 million, the total amount of California Water Fund monies expended up to that time. By mid-1972, all general obligation bonds authorized by the Burns-Porter Act had been offset, reserved for the Davis-Grunsky Act Program, or used for SWP construction.

Approximately \$8.5 million of the offset bonds was used to finance planning studies of the Middle Fork Eel River Development. This financial analysis is not based on the use of any offset bond

proceeds to meet capital requirements. If, at some time, the State constructs an additional conservation facility, as specified in Water Code Section 12938, the remaining offset bonds could be sold.

*Line 31, Davis-Grunsky Act Program Bond Proceeds*, shows, for simplification, the entire \$130 million of capital expenditures authorized for the Davis-Grunsky Act Program, according to the Burns-Porter Act, as being funded by proceeds from the sale of general obligation bonds. In fact, \$28 million from the California Water Fund was used for the program in lieu of bond proceeds prior to 1969.

*Line 32, Application of California Water Fund Monies*, shows the amount of SWP costs financed under the Burns-Porter Act. The act provides that any available money in the California Water Fund must be used for construction in lieu of proceeds from the sale of general obligation bonds.

When the Burns-Porter Act became effective in late 1960, approximately \$97 million had been accumulated in the fund. That balance, plus subsequent appropriations, interest earnings, and other miscellaneous income to the fund through December 31, 2005, was used to finance a total of \$508 million of SWP costs.

*Line 33, Interim Financing*, shows the net annual amounts of funds flowing into and out of the Water Revenue Commercial Paper Notes program. This program was established in March 1993 to provide an ongoing source of interim financing for Water System Projects prior to permanent financing from the sale of long-term revenue bonds. DWR has authority to issue up to \$94.4 million of Water Revenue



Commercial Paper Notes. A positive number indicates money borrowed from the program to finance construction costs. A negative number indicates money repaid to the program. The financial analysis assumes that all funds borrowed from the program will be repaid before the end of the analysis period.

*Line 34, Application of Capital Resources Revenues to Construction*, presents the Capital Resources Revenues applied for capital expenditures.

*Line 35, Revenue Transfers Applied*, shows monies assumed to be transferred to the California Water Fund, according to provisions of the Burns-Porter Act, and subsequently reappropriated to construction (see Line 40 of Table 14-2). Projected amounts for 2006 through 2020 include funds to finance expenditures for agricultural drainage facilities, as indicated in Line 13 of Table 14-1, and expenditures for additional conservation facilities, as indicated in Line 12.

*Line 36, Subtotal, Other Capital Financing*, is the total of Lines 30 through 35.

*Line 37, Total Financing of Capital Requirements*, totals Lines 21, 29, and 36.

## Annual Revenues and Expenditures

After financial analysis of SWP operations, DWR concluded that projected payments by contractors and other revenues will be adequate to pay annual operations, maintenance, power, and replacement costs and meet all repayment obligations on funds used to finance SWP construction and other authorized costs during the

period 2006 through 2020. Data on annual revenues and expenditures are presented in Table 14-2. A detailed discussion of each line item is presented below.

### SWP Revenues

SWP revenues consist primarily of SWP contractor payments required under their individual long-term water supply contracts. Those revenues are deposited in two funds: the Central Valley Water Project Revenue Fund, where all revenues pledged to revenue bonds are placed; and the California Water Resources Development Bond Fund-Systems Revenue Account, where all other SWP operating revenues are placed. Use of those funds is limited to paying operating costs and debt service; except that revenues in excess of those costs may be deposited to a reserve for future SWP construction, since the California Water Fund has been repaid (see Line 39).

*Line 1, Capital Resources Revenues*, includes the following:

- federal payments for SWP capital expenditures;
- appropriations for capital costs allocated to recreation;
- appropriations for SWP capital expenditures prior to passage of the Burns-Porter Act and according to Senate Bill 261 (1968);
- payments from Los Angeles Department of Water and Power for Castaic power development;
- advances from water contractors for construction of requested work;
- investment earnings on the Capital Resources Account; and
- investment earnings on unexpended revenue bond proceeds.

Historically, appropriations for capital costs allocated to recreation and fish and wildlife enhancement have amounted to \$5 million per year, which have been appropriated by the California Legislature from the State Tideland Oil Revenues. There have been no appropriations since 1985, and no appropriations are indicated in the financial analysis for the period 2006-2020. Legislation enacted in 1989 offset a portion of the amount owed to the SWP by the State for costs allocated to recreation and fish and wildlife enhancement against the amount the SWP owed to the California Water Fund (see Line 39).

*Lines 2 through 12, Water Contractor Payments*, show amounts of the separate elements of water contractor payments.

Amounts in Line 4 also include revenues sufficient to cover costs associated with sales of excess power. Appendix B of this bulletin presents a detailed explanation of payments identified in Lines 2 through 12.

Operations, maintenance, power, and replacement (OMP&R) costs are repaid as they are incurred as part of the Transportation Charge; therefore, no interest charges are included. Construction costs included in the Transportation Charge, and all construction and annual OMP&R costs included in the Delta Water Charge, are to be repaid with interest at the Project Interest Rate.

The Project Interest Rate, as defined in Article 1(r) of the standard provisions for water supply contracts, is the weighted average of the rates paid on certain securities issued and loans obtained to finance SWP facilities, as described below.

According to the original contract provisions, the basis for determining the Project Interest Rate was the weighted average of rates paid on general obligation bond sales only. In 1969, after Oroville Revenue Bonds were issued, the contract was amended to expand the basis to include rates on all other securities sold and loans obtained thereafter for financing SWP facilities, including revenue bonds (see Bulletin 132-70, page 28).

However, not all proceeds from the sale of revenue bonds are melded into the calculation of the Project Interest Rate. Only those proceeds applied to construction costs (the only application of general obligation bonds permitted by law) and those consumed by the bond discount (a component of the total interest cost of a revenue bond issue) are included in the calculation (see Table 14-8).

Calculations for determining the Project Interest Rate do not include proceeds from the sale of revenue bonds for Off-Aqueduct Power Facilities, the East Branch Enlargement facilities, or water system facilities defined in the Water Revenue Bond Amendment. Table 14-9 lists all bond sales by date and presents basic information used in the calculation of the Project Interest Rate.

Information about contractor water charges in Appendix B is based on known conditions and substantiates DWR's determination of 2007 water charges to be billed on July 1, 2006. However, information about significant differences between the sum of future charges included in Lines 2 through 12 of Table 14-2 and the substantiation of 2007

**Table 14-8. Revenue Bond Proceeds Affecting Project Interest Rate (in Millions of Dollars)**

| Project                                        | Proceeds Included in Project Interest Rate |                                                                                    |                                         |                                                                  | Total Principal Amount of Bonds | Percentage of Total Amount Included in Calculating Project Interest Rate |
|------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------|
|                                                | Applied to Construction Costs              | Less Portion of Proceeds Derived from Interest Earnings Prior to Delivery of Bonds | Plus Bond Financing and Refunding Costs | Subtotal, Proceeds Included in Calculating Project Interest Rate |                                 |                                                                          |
| Devil Canyon-Castaic Project Revenue Bonds     | 125.3                                      | 1.5                                                                                | 1.4                                     | 125.2                                                            | 139.2                           | 90%                                                                      |
| Pyramid Project Revenue Bonds (Series A)       | 71.2                                       | 0.5                                                                                | 1.1                                     | 71.8                                                             | 95.8                            | 75%                                                                      |
| Alamo Project Bond Anticipation Note           | 16.8                                       | 0.1                                                                                | 0.3                                     | 17.0                                                             | 24.4                            | 70%                                                                      |
| Small Hyrdo Project I Revenue Bonds (Series D) | 25.4                                       | 0.2                                                                                | 1.5                                     | 26.7                                                             | 37.5                            | 71%                                                                      |
| Alamo Project Revenue Bonds (Series F)         | 38.9                                       | 0.3                                                                                | 0.7                                     | 39.3                                                             | 50.0                            | 79%                                                                      |
| Power Facilities Revenue Bonds (Series H)      |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 5.0                                        | 0.0                                                                                | 0.1                                     | 5.1                                                              | 5.1                             | 100%                                                                     |
| Alamo Project                                  | 1.7                                        | 0.0                                                                                | 0.0                                     | 1.7                                                              | 1.7                             | 100%                                                                     |
| Small Hydro Project I                          | 25.2 <sup>a</sup>                          | 0.2                                                                                | 0.4                                     | 25.4                                                             | 35.6                            | 71%                                                                      |
| Water System Revenue Bonds (Series J)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 75.9 <sup>b</sup>                       | 75.9                                                             | 99.2 <sup>b</sup>               | 77%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 45.6 <sup>b</sup>                       | 45.6                                                             | 57.1 <sup>b</sup>               | 80%                                                                      |
| Small Hydro Project I                          | 0.0                                        | 0.0                                                                                | 27.8 <sup>b</sup>                       | 27.8                                                             | 38.8 <sup>b</sup>               | 72%                                                                      |
| Water System Revenue Bonds (Series L)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Small Hydro Project I                          | 0.0                                        | 0.0                                                                                | 1.5 <sup>b</sup>                        | 1.5                                                              | 2.1 <sup>b</sup>                | 71%                                                                      |
| Water System Revenue Bonds (Series Q)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 3.0 <sup>b</sup>                        | 3.0                                                              | 3.9 <sup>b</sup>                | 77%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 4.8 <sup>b</sup>                        | 4.8                                                              | 6.0 <sup>b</sup>                | 80%                                                                      |
| Water System Revenue Bonds (Series S)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 8.0 <sup>b</sup>                        | 8.0                                                              | 10.4 <sup>b</sup>               | 77%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 7.6 <sup>b</sup>                        | 7.6                                                              | 9.5 <sup>b</sup>                | 80%                                                                      |
| Water System Revenue Bonds (Series U)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 2.4 <sup>b</sup>                        | 2.4                                                              | 3.2 <sup>b</sup>                | 75%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 3.2 <sup>b</sup>                        | 3.2                                                              | 4.0 <sup>b</sup>                | 80%                                                                      |
| Water System Revenue Bonds (Series W)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 27.7 <sup>b</sup>                       | 27.7                                                             | 36.0 <sup>b</sup>               | 77%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 11.8 <sup>b</sup>                       | 11.8                                                             | 14.7 <sup>b</sup>               | 80%                                                                      |
| Small Hydro Project (construction)             | 3.4                                        | 0.0                                                                                | 0.0                                     | 3.4                                                              | 3.7                             | 92%                                                                      |
| Small Hydro Project (refunding)                | 0.0                                        | 0.0                                                                                | 16.3 <sup>b</sup>                       | 16.3                                                             | 22.7 <sup>b</sup>               | 72%                                                                      |
| Water System Revenue Bonds (Series X)          |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 8.5 <sup>b</sup>                        | 8.5                                                              | 11.0 <sup>b</sup>               | 77%                                                                      |
| Alamo Project (Series H refunding)             | 0.0                                        | 0.0                                                                                | 0.3 <sup>b</sup>                        | 0.3                                                              | 0.3 <sup>b</sup>                | 100%                                                                     |
| Alamo Project (Series F refunding)             | 0.0                                        | 0.0                                                                                | 3.9 <sup>b</sup>                        | 3.9                                                              | 4.9 <sup>b</sup>                | 79%                                                                      |
| Small Hydro Project                            | 0.0                                        | 0.0                                                                                | 4.6 <sup>b</sup>                        | 4.6                                                              | 6.4 <sup>b</sup>                | 72%                                                                      |
| Water System Revenue Bonds (Series AC)         |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 3.8 <sup>b</sup>                        | 3.8                                                              | 5.0 <sup>b</sup>                | 76%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 2.8 <sup>b</sup>                        | 2.8                                                              | 3.6 <sup>b</sup>                | 80%                                                                      |
| Small Hydro Project                            | 0.0                                        | 0.0                                                                                | 1.2 <sup>b</sup>                        | 1.2                                                              | 1.6 <sup>b</sup>                | 72%                                                                      |
| Water System Revenue Bonds (Series AD)         |                                            |                                                                                    |                                         |                                                                  |                                 |                                                                          |
| Pyramid Project                                | 0.0                                        | 0.0                                                                                | 3.2 <sup>b</sup>                        | 3.2                                                              | 4.2 <sup>b</sup>                | 76%                                                                      |
| Alamo Project                                  | 0.0                                        | 0.0                                                                                | 2.6 <sup>b</sup>                        | 2.6                                                              | 3.3 <sup>b</sup>                | 80%                                                                      |
| Small Hydro Project                            | 0.0                                        | 0.0                                                                                | 0.7 <sup>b</sup>                        | 0.7                                                              | 1.0 <sup>b</sup>                | 72%                                                                      |

<sup>a</sup>Amount consists of 71 percent of proceeds deposited in escrow to refund portion of Series D bonds (\$35.1 million plus deposits to construction account (\$0.3 million)).

<sup>b</sup>Represents amount of principal used to refund portions of prior bond issues.

**Table 14-9. Actual Bond Sales and Project Interest Rates, by Date of Sale**

| Bond Sales                                                           | Date of Sale | Dollar-Years <sup>a</sup><br>(Thousands) | Interest Cost<br>(Thousands) | Issue Interest<br>Rate <sup>b</sup><br>(Percent) | Project<br>Interest Rate <sup>c</sup><br>(Percent) |
|----------------------------------------------------------------------|--------------|------------------------------------------|------------------------------|--------------------------------------------------|----------------------------------------------------|
| \$ 50,000,000 Bond Anticipation Notes                                | 11/21/63     | 26,944                                   | 531                          | 1.971                                            | 1.971                                              |
| \$100,000,000 Series A Water Bonds                                   | 2/18/64      | 3,402,000                                | 119,750                      | 3.520                                            | 3.508                                              |
| \$ 50,000,000 Series B Water Bonds                                   | 5/05/64      | 1,726,000                                | 60,986                       | 3.533                                            | 3.516                                              |
| \$100,000,000 Series C Water Bonds                                   | 10/07/64     | 3,452,000                                | 123,764                      | 3.585                                            | 3.544                                              |
| \$100,000,000 Series D Water Bonds                                   | 2/16/65      | 3,497,900                                | 122,403                      | 3.499                                            | 3.531                                              |
| \$100,000,000 Series E Water Bonds                                   | 11/23/65     | 3,497,900                                | 130,029                      | 3.717                                            | 3.573                                              |
| \$100,000,000 Series F Water Bonds                                   | 6/08/66      | 3,497,900                                | 137,359                      | 3.927                                            | 3.638                                              |
| \$100,000,000 Series G Water Bonds                                   | 11/22/66     | 3,497,900                                | 143,788                      | 4.111                                            | 3.711                                              |
| \$100,000,000 Series H Water Bonds                                   | 3/21/67      | 3,497,900                                | 129,261                      | 3.695                                            | 3.709                                              |
| \$100,000,000 Series J Water Bonds                                   | 7/18/67      | 3,497,900                                | 143,199                      | 4.094                                            | 3.754                                              |
| \$100,000,000 Series K Water Bonds                                   | 11/14/67     | 3,497,900                                | 163,887                      | 4.685                                            | 3.853                                              |
| \$150,000,000 Revenue Bonds, Oroville Division, Series A             | 4/03/68      | 5,228,700                                | 270,289                      | 5.169                                            |                                                    |
| \$100,000,000 Series L Water Bonds                                   | 7/11/68      | 3,497,900                                | 166,918                      | 4.772                                            | 3.941                                              |
| \$100,000,000 Series M Water Bonds                                   | 10/22/68     | 3,497,900                                | 169,989                      | 4.860                                            | 4.021                                              |
| \$ 94,995,000 Revenue Bonds, Oroville Division, Series B             | 4/01/69      | 3,423,460                                | 195,902                      | 5.722                                            |                                                    |
| \$ 46,761,000 Cumulative 1970 General Fund Borrowing, repaid 7/10/70 | ---          | 4,938                                    | 346                          | 7.007                                            |                                                    |
| \$200,000,000 Series N and P Bond Anticipation Notes                 | 6/16/70      | 200,000                                  | 11,660                       | 5.830                                            | 4.030                                              |
| \$100,000,000 Series N Water Bonds                                   | 2/02/71      | 3,447,900                                | 190,292                      | 5.519                                            | 4.148                                              |
| \$100,000,000 Series Q Bond Anticipation Notes                       | 3/10/71      | 100,000                                  | 2,349                        | 2.349                                            | 4.143                                              |
| \$100,000,000 Series P Water Bonds                                   | 4/21/71      | 3,397,900                                | 193,377                      | 5.691                                            | 4.255                                              |
| \$150,000,000 Series Q and R Water Bonds                             | 11/09/71     | 5,171,850                                | 265,734                      | 5.138                                            | 4.342                                              |
| \$ 40,000,000 Series S Water Bonds                                   | 3/28/72      | 1,399,160                                | 76,509                       | 5.468                                            | 4.371                                              |
| \$139,165,000 Devil Canyon-Castaic Revenue Bonds                     | 8/08/72      | 4,776,204                                | 258,839                      | 5.419                                            | 4.457                                              |
| \$ 10,000,000 Series T Water Bonds                                   | 3/20/73      | 185,265                                  | 9,491                        | 5.123                                            | 4.459                                              |
| \$ 10,000,000 Series U Water Bonds                                   | 1/13/76      | 158,750                                  | 8,731                        | 5.500                                            | 4.462                                              |
| \$ 10,000,000 Series V Water Bonds                                   | 11/15/77     | 158,750                                  | 7,573                        | 4.770                                            | 4.462                                              |
| \$ 95,800,000 Pyramid Hydroelectric Revenue Bonds                    | 10/23/79     | 2,260,072                                | 172,495                      | 7.632                                            | 4.584                                              |
| \$150,000,000 Reid Gardner Project, Series A Bond Anticipation Notes | 7/1/81       | 347,906                                  | 29,572                       | 8.500                                            |                                                    |
| \$ 75,600,000 Bottle Rock Project, Bond Anticipation Notes           | 12/1/81      | 264,600                                  | 25,137                       | 9.500                                            |                                                    |
| \$ 24,400,000 Alamo Project, Bond Anticipation Notes                 | 12/1/81      | 24,266                                   | 2,305                        | 9.499                                            | 4.589                                              |
| \$200,000,000 Reid Gardner Project, Series B Revenue Bonds           | 7/07/82      | 4,623,137                                | 553,793                      | 11.979                                           |                                                    |
| \$125,000,000 Reid Gardner Project, Series C Revenue Bonds           | 11/16/82     | 2,720,045                                | 255,744                      | 9.402                                            |                                                    |
| \$ 37,500,000 Small Hydro Project I, Series D Revenue Bonds          | 11/16/82     | 837,769                                  | 84,587                       | 10.097                                           | 4.666                                              |
| \$ 37,500,000 South Geysers Project, Series D Revenue Bonds          | 11/16/82     | 930,325                                  | 90,021                       | 9.676                                            |                                                    |
| \$125,000,000 Bottle Rock Project, Series E Revenue Bonds            | 4/27/83      | 2,624,805                                | 225,102                      | 8.576                                            |                                                    |
| \$ 50,000,000 Alamo Project, Series F Revenue Bonds                  | 4/27/83      | 1,190,763                                | 100,836                      | 8.468                                            | 4.727                                              |
| \$ 25,000,000 South Geysers Project, Series F Revenue Bonds          | 4/27/83      | 608,550                                  | 52,578                       | 8.640                                            |                                                    |

<sup>a</sup>A unit equivalent to one dollar of principal amount outstanding for one year.

<sup>b</sup>The total interest cost (without regard to discounts paid or to premiums received) divided by the total dollar-years, expressed as a percent.

<sup>c</sup>Determined by dividing cumulative interest costs by cumulative dollar-years, expressed as a percent. Excluding Oroville Division bonds and revenue bonds for Off-Aqueduct Power Facilities, the East Branch Enlargement Facilities, East Branch Extension Facilities, Water System Facilities as defined in the Water Revenue Bond Amendment, Coastal Extension Facilities, or South Bay Enlargement Facilities.

**Table 14-9. Actual Bond Sales and Project Interest Rates, by Date of Sale**

| Bond Sales                                                                 | Date of Sale | Dollar-Years <sup>a</sup><br>(Thousands) | Interest Cost<br>(Thousands) | Issue Interest<br>Rate <sup>b</sup><br>(Percent) | Project<br>Interest Rate <sup>c</sup><br>(Percent) |
|----------------------------------------------------------------------------|--------------|------------------------------------------|------------------------------|--------------------------------------------------|----------------------------------------------------|
| \$239,505,000 Reid Gardner Project, Series G Revenue Bonds                 | 3/15/85      | 4,524,136                                | 425,840                      | 9.413                                            |                                                    |
| \$206,690,000 Power Facilities Series H Revenue Bonds                      | 6/20/86      | 4,430,520                                | 347,745                      | 7.849                                            | 4.713                                              |
| \$132,000,000 East Branch Enlargement, Series A Water System Revenue Bonds | 7/15/86      | 3,427,165                                | 254,915                      | 7.438                                            |                                                    |
| Water System Revenue Bonds                                                 |              |                                          |                              |                                                  |                                                    |
| \$100,000,000 Series B Water System Revenue Bonds                          | 5/05/87      | 2,564,012                                | 194,817                      | 7.598                                            |                                                    |
| \$ 9,000,000 Series C Water System Revenue Bonds                           | 12/01/87     | 324,000                                  | 31,995                       | 9.875                                            |                                                    |
| \$100,000,000 Series D Water System Revenue Bonds                          | 6/14/88      | 2,640,510                                | 201,253                      | 7.622                                            |                                                    |
| \$ 9,000,000 Series E Water System Revenue Bonds                           | 11/29/88     | 324,000                                  | 31,995                       | 9.875                                            |                                                    |
| \$160,030,000 Series F Water System Revenue Bonds                          | 3/15/89      | 2,779,838                                | 189,261                      | 6.808                                            |                                                    |
| \$100,000,000 Series G Water System Revenue Bonds                          | 3/06/90      | 2,434,175                                | 172,277                      | 7.077                                            |                                                    |
| \$100,000,000 Series H Water System Revenue Bonds                          | 1/10/91      | 2,459,172                                | 168,857                      | 6.866                                            |                                                    |
| \$180,000,000 Series I Water System Revenue Bonds                          | 5/14/91      | 4,366,680                                | 294,090                      | 6.735                                            |                                                    |
| \$649,835,000 Series J Water System Revenue Bonds                          | 1/16/92      | 12,422,222                               | 745,198                      | 5.999                                            |                                                    |
| \$100,000,000 Series K Water System Revenue Bonds                          | 5/12/92      | 2,366,783                                | 147,064                      | 6.214                                            |                                                    |
| \$ 9,000,000 Series W Water Bonds                                          | 8/19/92      | 95,250                                   | 6,172                        | 6.480                                            | 4.621                                              |
| \$537,830,000 Series L Water System Revenue Bonds                          | 5/19/93      | 11,414,859                               | 640,518                      | 5.611                                            | 4.620                                              |
| \$ 2,000,000 Series X Water Bonds                                          | 9/01/93      | 26,000                                   | 1,247                        | 4.796                                            |                                                    |
| \$ 1,400,000 Series Y Water Bonds                                          | 11/30/94     | 19,483                                   | 1,249                        | 6.411                                            |                                                    |
| \$190,000,000 Series M Water System Revenue Bonds                          | 12/19/93     | 3,911,846                                | 194,981                      | 4.984                                            |                                                    |
| \$152,000,000 Series N Water System Revenue Bonds                          | 3/03/95      | 2,241,606                                | 122,658                      | 5.472                                            |                                                    |
| \$335,000,000 Series O Water System Revenue Bonds                          | 12/05/95     | 7,528,890                                | 375,667                      | 4.990                                            |                                                    |
| \$160,000,000 Series P Water System Revenue Bonds                          | 5/07/96      | 3,553,823                                | 204,524                      | 5.755                                            |                                                    |
| \$266,630,000 Series Q Water System Revenue Bonds                          | 11/05/96     | 5,481,815                                | 299,846                      | 5.470                                            |                                                    |
| \$20,700,000 Series R Water System Revenue Bonds                           | 3/10/97      | 564,125                                  | 36,627                       | 6.493                                            |                                                    |
| \$200,205,000 Series S Water System Revenue Bonds                          | 8/04/97      | 4,093,110                                | 203,755                      | 4.978                                            |                                                    |
| \$135,665,000 Series T Water System Revenue Bonds                          | 8/04/97      | 1,310,620                                | 66,942                       | 5.108                                            |                                                    |
| \$207,180,000 Series U Water System Revenue Bonds                          | 12/01/98     | 4,032,075                                | 200,758                      | 4.979                                            |                                                    |
| \$ 20,580,000 Series V Water System Revenue Bonds                          | 12/01/98     | 525,100                                  | 32,819                       | 6.250                                            |                                                    |
| \$260,995,000 Series W Water System Revenue Bonds                          | 5/01/01      | 3,659,312                                | 195,822                      | 5.351                                            | 4.613                                              |
| \$160,225,000 Series X Water System Revenue Bonds                          | 5/01/02      | 2,732,785                                | 139,109                      | 5.090                                            | 4.610                                              |
| \$329,885,000 Series Y Water System Revenue Bonds                          | 7/05/02      | 4,422,973                                | 222,654                      | 5.034                                            |                                                    |
| \$170,655,000 Series Z Water System Revenue Bonds                          | 10/02/02     | 1,706,132                                | 75,696                       | 4.437                                            |                                                    |
| \$108,705,000 Series AA Water System Revenue Bonds                         | 10/04/02     | 2,114,341                                | 104,220                      | 4.929                                            |                                                    |
| \$189,625,000 Series AB Water System Revenue Bonds                         | 3/09/04      | 4,344,942                                | 173,788                      | 4.000                                            |                                                    |
| \$272,070,000 Series AC Water System Revenue Bonds                         | 12/15/04     | 4,479,436                                | 209,150                      | 4.669                                            |                                                    |
| \$272,070,000 Series AD Water System Revenue Bonds                         | 6/14/05      | 1,827,449                                | 90,461                       | 4.950                                            |                                                    |
| <b>Total</b>                                                               |              | <b>199,322,344</b>                       | <b>11,499,096</b>            |                                                  |                                                    |
| <b>Portion allocated to Project Interest Rate</b>                          |              | <b>63,912,154</b>                        | <b>2,945,036</b>             | <b>4.608</b>                                     | <b>4.608</b>                                       |

<sup>a</sup>A unit equivalent to one dollar of principal amount outstanding for one year.

<sup>b</sup>The total interest cost (without regard to discounts paid or to premiums received) divided by the total dollar-years, expressed as a percent.

<sup>c</sup>Determined by dividing cumulative interest costs by cumulative dollar-years, expressed as a percent. Excluding Oroville Division bonds and revenue bonds for Off-Aqueduct Power Facilities, the East Branch Enlargement Facilities, East Branch Extension Facilities, Water System Facilities as defined in the Water Revenue Bond Amendment, Coastal Extension Facilities, or South Bay Enlargement Facilities.

charges included in Appendix B are as described below.

- Future capital costs in Appendix B are based on the prevailing prices as of December 31, 2005. Those costs presented in the financial analysis include allowances for price escalation.
- Pre-2006 charges in Appendix B represent charges as they should have been, according to currently known conditions. Pre-2006 charges included in Table 14-2 are those actually paid as part of previously determined bills.
- Charges in Appendix B are unadjusted for past overpayments or underpayments. Charges included in Table 14-2 for 2006 and thereafter have been adjusted for any apparent overpayments or underpayments of pre-2006 charges.
- Charges in Appendix B for East Branch Enlargement costs include the amounts for debt service and 25 percent cover for the East Branch Enlargement share of the Series A through Series AD bonds. Charges in Table 14-2 apply to Series A through Series AD bonds and also include amounts of the debt service and cover for assumed future bonds.
- The water revenue bond surcharge in Appendix B applies only to the Series B through Series AD bonds. Surcharge values included in Table 14-2 apply to Series B through Series AD bonds and to assumed future issues required to finance SWP construction costs included in Table 14-1.

*Line 13, Subtotal, Water Contractor Payments*, is the total of Lines 2 through 12.

*Line 14, Revenue Bond Cover Adjustments*, represents the credit to contractors

resulting from the cover of 25 percent of one year's debt service for Off-Aqueduct Power Facility Bonds and Water System Revenue Bonds. Cover is collected as required by the bond resolutions to provide security to the bondholders. If not needed to meet annual bond service, the cover is credited to the contractors in the following year. The annual charges for the following cost components include an amount for bond cover:

- minimum OMP&R component of the Transportation Charge for Off-Aqueduct Power Facilities;
- Water System Revenue Bond Surcharge;
- capital cost component of the Transportation Charge for East Branch Enlargement Facilities;
- capital cost component of the Transportation Charge for Coastal Branch Extension Facilities;
- capital cost component of the Transportation Charge for East Branch Extension Facilities;
- capital cost component of the Transportation Charge for Tehachapi Afterbay; and
- capital cost component of the Transportation Charge for South Bay Aqueduct Enlargement.

*Line 15, Rate Management Adjustments*, shows the projected amount of revenue reductions allocated to SWP contractors after repayment of the California Water Fund (see Line 39). Under provisions of the Monterey Amendment, the reduction amount allocated to agricultural contractors is deposited into a trust fund to stabilize payments in water-short years. The urban contractor allocation is applied as a direct reduction in charges.

*Line 16, Federal Payments for Project Operating Costs*, shows federal payments made according to the December 31, 1961, agreement between California and the United States providing for DWR to operate and maintain the San Luis Joint-Use Facilities. According to the January 12, 1972, supplement to the agreement, the Bureau of Reclamation (Reclamation) initially paid 45 percent of operations, maintenance, and replacement (OM&R) costs for those activities. (The percentage does not apply to power costs; Reclamation and DWR each provide their own power to pump water through the joint facilities.)

The percentage paid by Reclamation is periodically reviewed by Reclamation and DWR. The most recent review of the percentage paid by Reclamation was completed in 1987 and resulted in a federal share of 44.09 percent. The amounts in Line 13 are based on the assumption that the federal share will continue at this level for calendar years 2006 through 2020.

*Line 17, Appropriations for Operating Costs Allocated to Recreation*, shows appropriations made under the Davis-Dolwig Act. In passing the Davis-Dolwig Act, the California Legislature declared its intent that except for funds provided according to Assembly Bill 12 (1966), DWR's budget will include appropriations of monies from the General Fund necessary for enhancement of fish and wildlife and recreation in connection with State water projects.

Annual OMP&R costs allocated to recreation and fish and wildlife enhancement are to be paid by annual appropriations from the General Fund. Through fiscal year 1982–1983, these

appropriations totaled \$16.657 million. There have been no additional appropriations since the 1982–1983 fiscal year, and none are indicated for 2006 through 2020.

Legislation enacted in 1989 offset a portion of the amount owed to the SWP by the State for costs allocated to recreation and to fish and wildlife enhancement against the amount the SWP owed to the California Water Fund (see line 36).

*Line 18, Davis-Grunsky Loan Repayments*, shows the repayments by local agencies of \$54.2 million of loans disbursed as of December 31, 2005. Repayment on any future loans was assumed to be beyond the period covered by the financial analysis.

*Line 19, Revenue Bond Proceeds*, includes bond proceeds classified as special reserves according to the description of revenue bond financing in Line 17 of Table 14-1. Those proceeds, used for capitalized OMP&R costs, revenue bond debt service, and debt service reserves, are not classified as revenue but are included in this line to simplify the financial presentation.

*Line 20, Interest Earnings on Operating Revenues*, includes interest earnings on unexpended proceeds from the sale of general obligation bonds, interest on operating reserves, and other short-term investment earnings on SWP revenues.

*Line 21, Oroville-Thermalito Payments*, shows payments from Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas and Electric Company for power generation at the

Oroville facilities. Those utilities purchased all power generation from Hyatt and Thermalito power plants before April 1, 1983, according to a power sale contract dated November 29, 1967. The 1952–2005 entry includes the amounts of final settlement of payments made according to the contract.

*Line 22, Miscellaneous Revenues*, includes all other operating revenues not included in Lines 2 through 21.

*Line 23, Subtotal, Other Revenues*, is the total of Lines 16 through 22.

*Line 24, Total Operating Revenues*, is the total of Lines 13, 14, 15, and 23.

*Line 25, Total Operating Revenues and Capital Resources Revenues*, is the total of Lines 1 and 24.

## **Project Expenses**

Project expenses include the following:

- operations, maintenance, and power costs;
- deposits to replacement reserves;
- deposits to special reserves;
- capital resources expenditures; and
- debt service.

Revenue bond proceeds earmarked for debt service during construction and the first year's operating expenses are deposited in the Central Valley Water Project Construction Fund and disbursed according to resolutions authorizing the issuance of such bonds.

Water contractor revenues associated with operating costs and debt service attributable to projects financed by revenue bonds are deposited in the Central Valley Water Project Revenue Fund for appropriate disbursement. All other operating revenues are deposited in the California Water Resources Development Bond Fund-Systems Revenue Account and are disbursed according to the following four priorities of use, as specified in the Burns-Porter Act:

- SWP operations, maintenance, power, and replacement costs;
- general obligation bond debt service;
- repayment of expenditures from the California Water Fund; and
- deposits to a reserve for future SWP construction.

Project expenses are presented in Lines 26 through 36 of Table 14-2.

*Line 26, Project Operations, Maintenance, Power, and Replacement Costs*, shows the OMP&R portion of the historical and projected costs presented in Table 14-10 at the end of the chapter.

Table 14-10 and Line 26 of Table 14-2 also include the amounts of the operations and maintenance costs for the federal share of joint facilities and those OMP&R costs allocated to recreation, which are intended to be offset by revenues listed in Lines 16 and 17.

Allowances for cost escalations are included in OMP&R costs through 2008. Allowances for additional long-term price escalations in the future are not included in these estimates, because changes in OMP&R costs do not substantially affect



the overall results of the financial analysis. (For the most part, changes in OMP&R costs cause direct offsetting changes in operating revenues.)

Power costs make up the major item of annual operating expenses for the SWP. Assumptions about future power sources and costs are discussed in Chapter 10. Line 26 also includes costs associated with power transactions that result in the sale of power not required for the delivery of water.

*Line 27, Deposits to Replacement Reserves*, shows funds set aside as required by contract for replacing existing SWP facilities. By December 31, 2005, \$93.7 million had been spent for replacement costs; the balance of the replacement reserve as of that date was \$17.1 million.

*Line 28, Deposits to Special Reserves Under Revenue Bond Financing*, includes two significant components: special reserve deposits related to revenue bonds; and capital resources revenue carryover from prior years used for construction in the current year. Special reserve deposits are the net of several income and expenditure items. Income items related to revenue bonds are as follows:

- proceeds set aside to pay bond interest during construction (capitalized interest);
- proceeds set aside for first year operating costs (capitalized operations and maintenance);
- water contractor payments or bond proceeds set aside for debt service reserves;

- water contractor payments for revenue bond cover requirements; and
- deposits to and withdrawals from operating reserves to meet day-to-day cash flow requirements.

The 1952–2005 column also includes advances to DWR’s revolving fund for working funds to purchase mobile equipment and to meet day-to-day operating expenses.

The expenditure items related to revenue bonds are as follows:

- debt service cover payments returned to water contractors;
- debt service reserve interest payments returned to water contractors;
- surplus account funds returned to water contractors or applied to meet expenses;
- total capitalized interest paid out; and
- total capitalized operations and maintenance paid out.

Special reserves, reduced over time as reserved amounts, are used for their respective purposes. The amount indicated each year in Line 25 indicates the change from the previous year. A negative number indicates a withdrawal of special reserves to meet expenses, while a positive number indicates a deposit.

*Line 29, Capital Resources Expenditures*, includes the amount of capital resources revenues applied to construction that is shown in Line 34 of Table 14-1. In Table 14-2, these expenditures are funded out of withdrawals from the reserves in Line 28 and do not affect net revenues shown in Line 38.

*Lines 30 and 31, Payment of Debt Service on Bonds Sold through December 31, 2005,* show the total principal and interest payments on bonds sold to date. Table 14-11, at the end of this chapter, summarizes payments on general obligation bonds (Series A through Y water bonds), power revenue bonds by project, and water system revenue bonds (Series A through AD).

*Lines 32 and 33, Payments on Projected Future Water Bonds,* include the projected annual debt service amounts for future water revenue bonds included on Lines 24, 26, and 28 of Table 14-1 for the East Branch Extension, South Bay Aqueduct Enlargement, and other water system facilities. Assumptions about the service on these future bonds are that interest costs for the water revenue bonds average 5.5 percent; and that bonds are to be repaid by the end of the project repayment period (2035) or sooner with maturities commencing in the year following the date of sale and with equal annual bond service for the principal repayment period.

*Lines 34 and 35, Total Payments of Bond Debt Service,* show the total of principal payments indicated on Lines 30 and 32, and the total of interest repayments indicated on Lines 31 and 33.

*Line 36, Subtotal, Debt Service,* is the total of Lines 34 and 35.

*Line 37, Total Operating Expenses and Debt Service,* is the total of Lines 26, 27, 28, 29, and 36.

*Line 38, Net System Revenues,* shows the annual amounts of revenues remaining

after the payment of operating costs and bond debt service costs.

*Line 39, California Water Fund Repayment,* shows the total amount of repayments made to the California Water Fund to reimburse the fund for monies expended for construction of the State Water Resources Development System.

Repayment of the California Water Fund was completed in 1998 after reimbursements totaling \$508 million. In addition to the \$296 million of repayments shown in Line 39, \$211 million of reimbursement were credited to the SWP as offsets for recreation and fish and wildlife enhancement expenditures.

*Line 40, Revenues Used for Capital Expenditures,* includes the amounts required annually for financing scheduled capital expenditures. Revenues not needed for operating costs or debt services are available for financing SWP capital expenditures.

## Future Costs of Water Service

Estimates of future water costs are useful to SWP contractors for short-range and long-range planning of water needs, operations, and budgets. Unit water charges shown in Table 14-12 represent both unescalated and escalated costs of water according to service areas for years 2007 and 2012. The unit rates include costs of existing and future SWP facilities accounted for in Table 14-1 and Table 14-7. The unit charges are based on the assumption that in 2007 and 2012, the SWP will be able to deliver the entire amounts of water requested by contractors. The unit water charges included in Table 14-12 are listed both as

unescalated 2005 dollars and as escalated rates reflecting assumed future inflation.

DWR's estimates of future capital expenditures include allowances for escalation of construction costs at 3 percent per year for 2006 through 2020. The escalation rates for future power sources vary, depending on the source of energy.

**Table 14-12. Estimated Unit Water Charges for 2007 and 2012, by Service Area (Dollars per Acre-Foot)**

| Service Area and Charge                                  | 2007               |                  | 2012               |                  |
|----------------------------------------------------------|--------------------|------------------|--------------------|------------------|
|                                                          | <i>Unescalated</i> | <i>Escalated</i> | <i>Unescalated</i> | <i>Escalated</i> |
| <b>Feather River Area</b>                                |                    |                  |                    |                  |
| Capital; Operations, Maintenance, and Replacement (OM&R) | 36                 | 36               | 28                 | 29               |
| <b>North Bay Area</b>                                    |                    |                  |                    |                  |
| Capital; OM&R                                            | 204                | 204              | 154                | 154              |
| Power                                                    | 41                 | 41               | 25                 | 26               |
| <b>Total</b>                                             | <b>245</b>         | <b>245</b>       | <b>179</b>         | <b>180</b>       |
| <b>South Bay Area</b>                                    |                    |                  |                    |                  |
| Capital; OM&R                                            | 113                | 113              | 105                | 105              |
| Power                                                    | 52                 | 52               | 53                 | 55               |
| <b>Total</b>                                             | <b>165</b>         | <b>165</b>       | <b>158</b>         | <b>160</b>       |
| <b>Coastal Area</b>                                      |                    |                  |                    |                  |
| Capital; OM&R                                            | 719                | 719              | 494                | 494              |
| Power                                                    | 151                | 153              | 146                | 153              |
| <b>Total</b>                                             | <b>870</b>         | <b>872</b>       | <b>640</b>         | <b>647</b>       |
| <b>San Joaquin Area</b>                                  |                    |                  |                    |                  |
| Capital; OM&R                                            | 55                 | 55               | 53                 | 53               |
| Power                                                    | 25                 | 25               | 24                 | 25               |
| <b>Total</b>                                             | <b>80</b>          | <b>80</b>        | <b>77</b>          | <b>78</b>        |
| <b>Southern California Area</b>                          |                    |                  |                    |                  |
| Capital; OM&R                                            | 160                | 160              | 126                | 126              |
| Power                                                    | 184                | 184              | 166                | 173              |
| <b>Total</b>                                             | <b>344</b>         | <b>344</b>       | <b>292</b>         | <b>299</b>       |

Table 14-1. Capital Requirements and Financing, December 31, 2005 (Thousands of Dollars)

|                                                                            | Calendar Year |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
|----------------------------------------------------------------------------|---------------|----------|---------|----------|---------|----------|--------|----------|--------|----------|--------|----------|--------|-------|-------|-------|-----------|-----------|
| Line Number/Item                                                           | 1952-2005     | 2006     | 2007    | 2008     | 2009    | 2010     | 2011   | 2012     | 2013   | 2014     | 2015   | 2016     | 2017   | 2018  | 2019  | 2020  | 2006-2020 | 1952-2020 |
| Capital Requirements                                                       |               |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
| 1. Initial Project Facilities                                              | 2,202,316     | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 2,202,316 |
| 2. North Bay Aqueduct                                                      | 90,363        | 620      | 5,123   | 5,123    | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 10,866    | 101,229   |
| 3. Delta and Suisun Marsh Facilities                                       | 249,571       | 10,260   | 10,260  | 10,260   | 3,660   | 3,660    | 3,660  | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 41,760    | 291,331   |
| 4. Final 4 Units at Banks Pumping Plant                                    | 43,673        | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 43,673    |
| 5. Coastal Branch Aqueduct                                                 | 507,048       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 507,048   |
| 6. West Branch Aqueduct                                                    | 193,498       | 11       | 45      | 600      | 332     | 4,195    | 480    | 220      | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 5,883     | 199,381   |
| 7. East Branch Enlargement                                                 | 453,459       | 603      | 4,381   | 6,921    | 23,618  | 23,807   | 60,302 | 67,620   | 70,792 | 70,796   | 70,723 | 52,132   | 4,076  | 0     | 0     | 0     | 455,771   | 909,230   |
| 8. East Branch Improvements                                                | 270,420       | 33,705   | 4,451   | 3,120    | 4,320   | 2,300    | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 47,896    | 318,316   |
| 9. East Branch Extension                                                   | 128,473       | 2,710    | 4,855   | 44,685   | 77,270  | 36,740   | 11,670 | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 177,930   | 306,403   |
| 10. South Bay Aqueduct                                                     | 18,102        | 25,910   | 62,647  | 25,843   | 10,000  | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 124,400   | 142,502   |
| 11. Power Generation and Transmission Facilities                           | 684,678       | 5,544    | 10,000  | 2,500    | 2,500   | 2,500    | 2,500  | 2,500    | 2,500  | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 30,544    | 715,222   |
| 12. Additional Conservation Facilities                                     | 145,886       | 3,849    | 3,894   | 4,144    | 4,144   | 4,144    | 4,144  | 4,144    | 4,144  | 4,144    | 4,144  | 4,144    | 4,144  | 4,144 | 4,144 | 4,144 | 61,615    | 207,501   |
| 13. Agricultural Drainage Facilities                                       | 66,440        | 2,934    | 3,063   | 3,198    | 3,339   | 3,486    | 3,486  | 3,486    | 3,486  | 3,486    | 3,486  | 3,486    | 3,486  | 3,486 | 3,486 | 3,486 | 50,880    | 117,320   |
| 14. Other Costs                                                            | 256,841       | 18,527   | 24,480  | 15,681   | 19,275  | 20,775   | 8,275  | 3,625    | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 110,638   | 367,479   |
| 15. Total Project Construction Expenditures                                | 5,310,768     | 104,673  | 133,199 | 122,075  | 148,458 | 101,607  | 94,517 | 81,595   | 80,922 | 78,426   | 78,353 | 59,762   | 11,706 | 7,630 | 7,630 | 7,630 | 1,118,183 | 6,428,951 |
| 16. Davis-Grunsky Act Program Costs                                        | 130,000       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 130,000.0 |
| 17. Special Capital Requirements Under<br>Revenue Bond Financing           | 597,040       | 18,191   | 7,498   | 19,928   | 9,730   | 17,105   | 1,330  | 17,258   | 0      | 16,752   | 0      | 16,189   | 0      | 0     | 0     | 0     | 123,981   | 721,021.0 |
| 18. Total Capital Requirements                                             | 6,037,808     | 122,864  | 140,697 | 142,003  | 158,188 | 118,712  | 95,847 | 98,853   | 80,922 | 95,178   | 78,353 | 75,951   | 11,706 | 7,630 | 7,630 | 7,630 | 1,242,164 | 7,279,972 |
| 19. Power Facilities Capital Requirements                                  | 684,678       | 5,544    | 10,000  | 2,500    | 2,500   | 2,500    | 2,500  | 2,500    | 2,500  | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 30,544    | 715,222   |
| 20. Water Facilities Capital Requirements                                  | 5,353,130     | 117,320  | 130,697 | 139,503  | 155,688 | 116,212  | 93,347 | 96,353   | 78,422 | 95,178   | 78,353 | 75,951   | 11,706 | 7,630 | 7,630 | 7,630 | 1,211,620 | 6,564,750 |
| Financing Of Capital Requirements                                          |               |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
| Power Revenue Bond Proceeds                                                |               |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
| 21. Power Revenue Bonds through Series H                                   | 1,162,458     | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 1,162,458 |
| Water Revenue Bond Proceeds                                                |               |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
| 22. East Branch Enlargement, Current Bonds                                 | 473,606       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 473,606   |
| 23. East Branch Extension, Current Bonds                                   | 139,520       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 139,520   |
| 24. East Branch Extension, Future Bonds                                    |               | 5,200    | 5,400   | 49,700   | 85,900  | 40,800   | 13,000 | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 200,000   | 200,000   |
| 25. South Bay Aqueduct Improvement and<br>Enlargement, Current Bonds       | 16,938        | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 16,938    |
| 26. South Bay Aqueduct Improvement and<br>Enlargement, Future Bonds        |               | 31,500   | 69,600  | 28,700   | 11,100  | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 140,900   | 140,900   |
| 27. Water System Facilities, Current Bonds                                 | 1,455,083     | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 1,455,083 |
| 28. Water System Facilities, Future Bonds                                  | 0             | 146,200  | 0       | 120,300  | 0       | 130,100  | 0      | 172,700  | 0      | 167,100  | 0      | 161,900  | 0      | 0     | 0     | 0     | 898,300   | 898,300   |
| 29. Subtotal, Water Revenue Bonds                                          | 2,085,147     | 182,900  | 75,000  | 198,700  | 97,000  | 170,900  | 13,000 | 172,700  | 0      | 167,100  | 0      | 161,900  | 0      | 0     | 0     | 0     | 1,239,200 | 3,324,347 |
| Other Capital Financing                                                    |               |          |         |          |         |          |        |          |        |          |        |          |        |       |       |       |           |           |
| 30. Initial Project Facilities Bond Proceeds                               | 1,452,452     | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 1,452,452 |
| 31. Davis-Grunsky Act Program Bond Proceeds                                | 130,000       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 130,000   |
| 32. Application of California Water Fund Monies<br>(Tideland Oil Revenues) | 508,056       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 508,056   |
| 33. Interim Financing                                                      | 64,536        | (64,536) | 61,197  | (61,197) | 56,688  | (56,688) | 78,347 | (78,347) | 76,422 | (76,422) | 73,853 | (90,449) | 7,206  | 3,130 | 3,130 | 3,130 | (64,536)  | 0         |
| 34. Application of Capital Resources<br>Revenues to Construction           | 566,269       | 0        | 0       | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 0        | 0      | 0     | 0     | 0     | 0         | 566,269   |
| 35. Revenue Transfers Applied                                              | 68,890        | 4,500    | 4,500   | 4,500    | 4,500   | 4,500    | 4,500  | 4,500    | 4,500  | 4,500    | 4,500  | 4,500    | 4,500  | 4,500 | 4,500 | 4,500 | 67,500    | 136,390   |
| 36. Subtotal, Other Capital Financing                                      | 2,790,203     | (60,036) | 65,697  | (56,697) | 61,188  | (52,188) | 82,847 | (73,847) | 80,922 | (71,922) | 78,353 | (85,949) | 11,706 | 7,630 | 7,630 | 7,630 | 2,964     | 2,793,167 |
| 37. Total Financing Of Capital Requirements                                | 6,037,808     | 122,864  | 140,697 | 142,003  | 158,188 | 118,712  | 95,847 | 98,853   | 80,922 | 95,178   | 78,353 | 75,951   | 11,706 | 7,630 | 7,630 | 7,630 | 1,242,164 | 7,279,972 |

Table 14-2. State Water Project Revenues and Expenditures, December 31, 2005 (Thousands of Dollars)

| Line Number/Item                                                  | Calendar Year |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
|-------------------------------------------------------------------|---------------|----------|----------|-----------|----------|----------|----------|-----------|-----------|----------|----------|-----------|----------|-----------|-----------|----------|------------|-------------|
|                                                                   | 1952-2005     | 2006     | 2007     | 2008      | 2009     | 2010     | 2011     | 2012      | 2013      | 2014     | 2015     | 2016      | 2017     | 2018      | 2019      | 2020     | 2006-2020  | 1952-2020   |
| PROJECT REVENUES                                                  |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 1. Capital resources revenues                                     | 814,701       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 814,701     |
| Water Contractor Payments                                         |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 2. Transportation capital                                         | 3,504,827     | 136,238  | 137,991  | 141,014   | 145,609  | 146,080  | 146,319  | 146,546   | 145,092   | 144,003  | 142,218  | 139,700   | 134,528  | 125,852   | 116,235   | 107,043  | 2,054,468  | 5,559,295   |
| 3. Transportation minimum                                         | 2,712,564     | 146,684  | 134,773  | 157,919   | 131,165  | 130,946  | 131,628  | 131,350   | 131,259   | 132,323  | 130,891  | 132,823   | 132,138  | 132,030   | 133,744   | 131,777  | 2,021,450  | 4,734,014   |
| 4. Transportation variable                                        | 3,314,516     | 238,873  | 312,665  | 349,613   | 300,014  | 327,478  | 323,698  | 348,515   | 398,092   | 429,383  | 441,875  | 470,301   | 443,417  | 474,352   | 495,864   | 460,855  | 5,814,995  | 9,129,511   |
| 5. Off-Aqueduct power facilities                                  | 2,200,965     | 106,859  | 124,268  | 135,600   | 135,835  | 136,657  | 133,497  | 133,707   | 78,185    | 20,080   | 11,901   | 10,195    | 9,909    | 4,210     | 4,175     | 4,498    | 1,049,576  | 3,250,541   |
| 6. Delta water charge                                             | 2,015,022     | 111,009  | 108,112  | 108,622   | 108,848  | 109,078  | 109,312  | 109,552   | 109,563   | 109,576  | 109,599  | 109,619   | 109,635  | 109,651   | 109,668   | 109,683  | 1,641,527  | 3,656,549   |
| 7. East Branch Enlargement                                        | 582,138       | 44,623   | 44,961   | 42,664    | 43,602   | 43,331   | 44,417   | 44,479    | 44,004    | 44,194   | 45,233   | 45,341    | 46,335   | 45,362    | 46,520    | 44,764   | 669,830    | 1,251,968   |
| 8. East Branch Extension                                          | 39,018        | 10,376   | 10,793   | 8,418     | 14,429   | 22,363   | 26,080   | 27,318    | 28,858    | 28,119   | 28,286   | 28,810    | 29,583   | 29,082    | 29,138    | 29,291   | 350,944    | 389,962     |
| 9. Coastal Extension                                              | 21,790        | 3,094    | 4,051    | 2,935     | 2,931    | 6,174    | 4,090    | 4,093     | 4,383     | 4,966    | 5,026    | 4,961     | 4,700    | 3,686     | 2,903     | 3,902    | 61,895     | 83,685      |
| 10. South Bay Aqueduct Enlargement                                | 310           | 706      | 3,646    | 9,830     | 12,406   | 13,420   | 13,420   | 13,420    | 13,425    | 13,423   | 13,422   | 13,427    | 13,423   | 13,422    | 13,420    | 13,426   | 174,236    | 174,546     |
| 11. Tehachapi East Afterbay                                       | 185           | 259      | 260      | 260       | 260      | 260      | 260      | 260       | 260       | 260      | 260      | 260       | 260      | 260       | 260       | 260      | 3,899      | 4,084       |
| 12. Water revenue bond surcharge                                  | 392,609       | 62,374   | 62,400   | 58,712    | 59,603   | 57,031   | 61,565   | 61,630    | 64,960    | 67,362   | 70,842   | 71,562    | 70,510   | 62,181    | 67,055    | 61,746   | 959,533    | 1,352,142   |
| 13. Subtotal, water contractor payments                           | 14,783,944    | 861,095  | 943,920  | 1,015,587 | 954,702  | 992,818  | 994,286  | 1,020,870 | 1,018,081 | 993,689  | 999,553  | 1,026,999 | 994,438  | 1,000,088 | 1,018,982 | 967,245  | 14,802,353 | 29,586,297  |
| 14. Revenue bond cover adjustments                                | (500,958)     | (41,599) | (42,565) | (44,159)  | (46,461) | (47,928) | (49,835) | (50,170)  | (45,357)  | (45,132) | (45,086) | (45,009)  | (44,860) | (40,332)  | (42,427)  | (40,136) | (671,056)  | (1,172,014) |
| 15. Rate management adjustments                                   | (259,514)     | (24,746) | 0        | (40,470)  | (40,470) | (40,470) | (40,470) | (40,470)  | (40,470)  | (40,470) | (40,470) | (40,470)  | (40,470) | (40,470)  | (40,470)  | (40,470) | (550,856)  | (810,370)   |
| Other Revenues                                                    |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 16. Federal payments for project operating costs                  | 236,681       | 11,827   | 11,827   | 11,827    | 11,827   | 11,827   | 11,839   | 11,839    | 11,839    | 11,839   | 11,839   | 11,839    | 11,839   | 11,839    | 11,839    | 11,839   | 177,525    | 414,206     |
| 17. Appropriations for operating costs allocated to recreation    | 16,657        | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 16,657      |
| 18. Davis-Grunsky loan repayments                                 | 54,187        | 1,400    | 1,400    | 1,400     | 1,400    | 1,400    | 1,400    | 1,400     | 1,400     | 1,400    | 1,400    | 1,400     | 1,400    | 1,400     | 1,400     | 1,400    | 21,000     | 75,187      |
| 19. Revenue bond proceeds                                         | 652,977       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 652,977     |
| 20. Interest earnings on operating revenues                       | 572,493       | 4,000    | 4,000    | 4,000     | 4,000    | 4,000    | 4,000    | 4,000     | 4,000     | 4,000    | 4,000    | 4,000     | 4,000    | 4,000     | 4,000     | 4,000    | 60,000     | 632,493     |
| 21. Oroville-Thermalito payments                                  | 249,279       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 249,279     |
| 22. Miscellaneous revenues                                        | 184,264       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 184,264     |
| 23. Subtotal, other revenues                                      | 1,966,538     | 17,227   | 17,227   | 17,227    | 17,227   | 17,227   | 17,239   | 17,239    | 17,239    | 17,239   | 17,239   | 17,239    | 17,239   | 17,239    | 17,239    | 17,239   | 258,525    | 2,225,063   |
| 24. Total operating revenues                                      | 15,990,010    | 811,977  | 918,582  | 948,185   | 884,998  | 921,647  | 921,220  | 947,469   | 949,493   | 925,326  | 931,236  | 958,759   | 926,347  | 936,525   | 953,324   | 903,878  | 13,838,966 | 29,828,976  |
| 25. Total operating revenues and capital resources revenues       | 16,804,711    | 811,977  | 918,582  | 948,185   | 884,998  | 921,647  | 921,220  | 947,469   | 949,493   | 925,326  | 931,236  | 958,759   | 926,347  | 936,525   | 953,324   | 903,878  | 13,838,966 | 30,643,677  |
| PROJECT EXPENSES                                                  |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 26. Project operations, maintenance, power, and replacement costs | 7,887,020     | 522,292  | 638,078  | 666,096   | 572,871  | 599,314  | 595,205  | 618,274   | 645,606   | 623,789  | 632,905  | 666,879   | 638,506  | 669,763   | 691,873   | 652,490  | 9,433,941  | 17,320,961  |
| 27. Deposits to replacement reserves                              | 132,950       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 132,950     |
| 28. Deposits to special reserves                                  | 755,953       | 16,696   | (6,603)  | (15,601)  | (9,104)  | (12,025) | (25,482) | (23,388)  | (45,434)  | (42,914) | (53,152) | (49,870)  | (57,906) | (44,685)  | (47,590)  | (47,877) | (464,935)  | 291,018     |
| 29. Capital resources expenditures                                | 686,932       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 686,932     |
| Payments of Debt Service                                          |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 30. Principal repayments on bonds sold through                    |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| December 31, 2005 (current bonds)                                 | 1,936,270     | 119,134  | 125,298  | 131,475   | 141,339  | 147,005  | 155,434  | 162,364   | 153,940   | 156,265  | 157,070  | 154,917   | 152,547  | 125,862   | 129,773   | 126,600  | 2,139,023  | 4,075,293   |
| 31. Interest on bonds sold through                                |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| December 31, 2005 (current bonds)                                 | 5,035,909     | 149,355  | 143,601  | 137,386   | 131,125  | 124,388  | 117,315  | 109,495   | 101,242   | 94,048   | 86,662   | 79,081    | 71,500   | 63,886    | 57,569    | 50,965   | 1,517,618  | 6,553,527   |
| 32. Future water bond principal repayments                        | 0             | 0        | 3,825    | 6,369     | 11,377   | 15,489   | 20,436   | 22,061    | 27,143    | 28,586   | 34,528   | 36,373    | 43,360   | 45,685    | 48,136    | 50,719   | 394,087    | 394,087     |
| 33. Future water bond interest payments                           | 0             | 0        | 9,883    | 17,960    | 32,890   | 42,976   | 53,812   | 54,163    | 62,496    | 61,052   | 68,723   | 66,879    | 73,840   | 71,514    | 69,063    | 66,481   | 751,732    | 751,732     |
| 34. Total principal                                               | 1,936,270     | 119,134  | 129,123  | 137,844   | 152,716  | 162,494  | 175,870  | 184,425   | 181,083   | 184,851  | 191,598  | 191,290   | 195,907  | 171,547   | 177,909   | 177,319  | 2,533,110  | 4,469,380   |
| 35. Total interest                                                | 5,035,909     | 149,355  | 153,484  | 155,346   | 164,015  | 167,364  | 171,127  | 163,658   | 163,738   | 155,100  | 155,385  | 145,960   | 145,340  | 135,400   | 126,632   | 117,446  | 2,269,350  | 7,305,259   |
| 36. Subtotal, debt service                                        | 6,972,179     | 268,489  | 282,607  | 293,190   | 316,731  | 329,858  | 346,997  | 348,083   | 344,821   | 339,951  | 346,983  | 337,250   | 341,247  | 306,947   | 304,541   | 294,765  | 4,802,460  | 11,774,639  |
| NET REVENUES                                                      |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 37. Total Operating Expenses and Debt Service                     | 16,435,034    | 807,477  | 914,082  | 943,685   | 880,498  | 917,147  | 916,720  | 942,969   | 944,993   | 920,826  | 926,736  | 954,259   | 921,847  | 932,025   | 948,824   | 899,378  | 13,771,466 | 30,206,500  |
| 38. Net system revenues                                           | 369,677       | 4,500    | 4,500    | 4,500     | 4,500    | 4,500    | 4,500    | 4,500     | 4,500     | 4,500    | 4,500    | 4,500     | 4,500    | 4,500     | 4,500     | 4,500    | 67,500     | 437,177     |
| Application of Net System Revenues                                |               |          |          |           |          |          |          |           |           |          |          |           |          |           |           |          |            |             |
| 39. California Water Fund repayment                               | 296,287       | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0         | 0        | 0         | 0         | 0        | 0          | 296,287     |
| 40. Revenues used for capital expenditures                        | 73,390        | 4,500    | 4,500    | 4,500     | 4,500    | 4,500    | 4,500    | 4,500     | 4,500     | 4,500    | 4,500    | 4,500     | 4,500    | 4,500     | 4,500     | 4,500    | 67,500     | 140,890     |

Table 14-10. Operations, Maintenance, Power, and Replacement Costs, by Facility, Composition, and Purpose (Thousands of Dollars)

| Feature                                                     | Calendar year    |                |                |                |                |                |                |                |                |                |                |                   |                   |
|-------------------------------------------------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|-------------------|
|                                                             | 1962-2005        | 2006           | 2007           | 2008           | 2009           | 2010           | 2011           | 2012           | 2013           | 2014           | 2015           | 2016-2035         | TOTAL             |
| <b>Project Facility</b>                                     |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Feather River facilities                                    | 748,383          | 28,943         | 28,551         | 32,398         | 26,251         | 26,098         | 26,416         | 26,442         | 26,438         | 26,374         | 26,228         | 592,560           | 1,615,083         |
| North Bay Aqueduct                                          | 41,849           | 3,179          | 3,963          | 4,355          | 3,580          | 3,628          | 3,674          | 3,736          | 3,881          | 3,998          | 4,032          | 86,453            | 166,329           |
| Delta facilities                                            | 576              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                 | 576               |
| Suisun Marsh                                                | 24,854           | 2,387          | 2,988          | 3,390          | 2,747          | 2,731          | 2,223          | 2,225          | 2,224          | 2,217          | 2,205          | 49,817            | 100,009           |
| South Bay Aqueduct                                          | 134,825          | 12,335         | 15,309         | 16,605         | 13,663         | 13,867         | 13,999         | 14,233         | 14,871         | 15,357         | 15,395         | 315,965           | 596,424           |
| California Aqueduct                                         |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Delta to Edmonston                                          | 2,875,008        | 179,806        | 222,540        | 240,389        | 196,159        | 211,063        | 208,477        | 213,122        | 239,695        | 246,660        | 253,379        | 5,449,361         | 10,535,658        |
| Edmonston to Perris                                         | 2,509,685        | 206,730        | 258,374        | 265,635        | 228,045        | 238,926        | 239,939        | 255,926        | 281,567        | 304,523        | 306,696        | 6,440,233         | 11,536,278        |
| West Branch                                                 | (69,791)         | (8,162)        | (12,495)       | (13,706)       | (11,639)       | (11,338)       | (10,921)       | (9,098)        | (10,365)       | (10,550)       | (10,304)       | (316,757)         | (495,125)         |
| Coastal Branch                                              | 189,185          | 12,877         | 15,845         | 17,014         | 14,048         | 14,321         | 14,450         | 14,741         | 15,548         | 16,173         | 16,236         | 334,847           | 675,285           |
| East Branch Enlargement                                     | 38,491           | 4,830          | 5,025          | 4,968          | 4,968          | 4,968          | 4,968          | 4,968          | 4,968          | 4,968          | 4,968          | 99,369            | 187,461           |
| Off-Aqueduct power-generating facilities                    | 1,090,115        | 62,815         | 80,983         | 78,053         | 78,053         | 78,053         | 78,013         | 78,013         | 52,813         | 103            | 103            | 515               | 1,677,632         |
| Recreation, planning, and CVP negotiations                  | 3,298            | 683            | 683            | 683            | 683            | 683            | 683            | 683            | 683            | 683            | 683            | 13,669            | 23,797            |
| Water quality monitoring                                    | 349,887          | 15,270         | 15,712         | 15,712         | 15,712         | 15,712         | 12,683         | 12,683         | 12,683         | 12,683         | 12,683         | 227,572           | 718,992           |
| Davis-Grunsky Act Program                                   | 10,505           | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 12,000            | 28,505            |
| <i>Subtotal</i>                                             | <i>7,946,868</i> | <i>522,292</i> | <i>638,078</i> | <i>666,096</i> | <i>572,871</i> | <i>599,314</i> | <i>595,205</i> | <i>618,274</i> | <i>645,606</i> | <i>623,789</i> | <i>632,905</i> | <i>13,305,605</i> | <i>27,366,903</i> |
| Payments to/credits from PG&E under Comprehensive Agreement | (59,848)         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                 | (59,848)          |
| <b>Total OMP&amp;R Costs</b>                                | <b>7,887,020</b> | <b>522,292</b> | <b>638,078</b> | <b>666,096</b> | <b>572,871</b> | <b>599,314</b> | <b>595,205</b> | <b>618,274</b> | <b>645,606</b> | <b>623,789</b> | <b>632,905</b> | <b>13,305,605</b> | <b>27,307,055</b> |
| <b>Composition</b>                                          |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Salaries and expenses of headquarters personnel             | 2,223,395        | 72,503         | 112,779        | 139,101        | 90,759         | 89,819         | 87,532         | 93,774         | 92,912         | 92,375         | 90,153         | 1,629,495         | 4,814,598         |
| Salaries and expenses of field personnel                    | 3,283,348        | 77,213         | 135,939        | 170,330        | 115,756        | 114,955        | 112,046        | 120,534        | 119,323        | 120,575        | 117,604        | 2,853,538         | 7,341,161         |
| Pumping power                                               |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Used by pumping plants                                      | 1,846,651        | 363,373        | 362,682        | 355,476        | 357,343        | 386,374        | 389,475        | 396,786        | 453,346        | 485,061        | 499,835        | 10,401,133        | 16,297,536        |
| Produced by generation plants                               | (387,188)        | (53,890)       | (54,581)       | (77,141)       | (69,317)       | (70,165)       | (72,138)       | (71,110)       | (73,065)       | (74,602)       | (75,067)       | (1,585,028)       | (2,663,294)       |
| Payments to\credits from PG&E under Comprehensive Agreement | (59,848)         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                 | (59,848)          |
| Off-Aqueduct power generating facilities requirement        | 1,090,117        | 62,815         | 80,983         | 78,053         | 78,053         | 78,053         | 78,013         | 78,013         | 52,813         | 103            | 103            | 927               | 1,678,046         |
| Oroville-Thermalito insurance premiums                      | 11,597           | 277            | 277            | 277            | 277            | 277            | 277            | 277            | 277            | 277            | 277            | 5,540             | 19,907            |
| Less: Portion of costs incurred during construction         | (121,051)        | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                 | (121,051)         |
| <b>Total OMP&amp;R Costs</b>                                | <b>7,887,020</b> | <b>522,292</b> | <b>638,078</b> | <b>666,096</b> | <b>572,871</b> | <b>599,314</b> | <b>595,205</b> | <b>618,274</b> | <b>645,606</b> | <b>623,789</b> | <b>632,905</b> | <b>13,305,605</b> | <b>27,307,055</b> |
| <b>Project Purpose</b>                                      |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Water supply and power generation                           | 7,571,002        | 499,369        | 615,155        | 643,172        | 549,947        | 576,391        | 572,281        | 595,349        | 622,680        | 600,860        | 609,976        | 12,847,025        | 26,303,207        |
| Payments to\credits from PG&E under Comprehensive Agreement | (59,848)         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                 | (59,848)          |
| Recreation and fish and wildlife enhancement                | 151,839          | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         | 200,000           | 451,839           |
| Flood control                                               | 4,714            | 323            | 323            | 324            | 324            | 323            | 324            | 325            | 326            | 329            | 329            | 6,580             | 14,544            |
| Miscellaneous purposes                                      |                  |                |                |                |                |                |                |                |                |                |                |                   |                   |
| Federal share, San Luis, and Delta facilities               | 208,808          | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 240,000           | 568,808           |
| Other (Davis-Grunsky, drainage, City of Los Angeles)        | 10,505           | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 600            | 12,000            | 28,505            |
| <b>Total OMP&amp;R Costs</b>                                | <b>7,887,020</b> | <b>522,292</b> | <b>638,078</b> | <b>666,096</b> | <b>572,871</b> | <b>599,314</b> | <b>595,205</b> | <b>618,274</b> | <b>645,606</b> | <b>623,789</b> | <b>632,905</b> | <b>13,305,605</b> | <b>27,307,055</b> |

Table 14-11. Annual Debt Service on Bonds Sold through December 31, 2005 (Thousands of Dollars)

| Calendar Year | Series A through Y Water Bonds |          | Oroville Revenue Bonds <sup>a</sup> |          | Pyramid Project Revenue Bonds <sup>b</sup> |          | Alamo Project Revenue Bonds <sup>b</sup> |          | Small Hydro Project Revenue Bonds <sup>b</sup> |          | Water System Facilities Water System Revenue Bonds <sup>c</sup> |          | Subtotal  |          | Devil Canyon-Castaic Project Revenue Bonds |          | Reid Gardner Project Revenue Bonds <sup>d,e</sup> |          | South Geysers Project Revenue Bonds <sup>e</sup> |          | Bottle Rock Project Revenue Bonds <sup>e</sup> |          | East Branch Enlargement Project Water System Revenue Bonds <sup>e</sup> |          | Coastal Extension Facilities Water System Revenue Bonds |          | East Branch Extension Facilities Water System Revenue Bonds <sup>e</sup> |          | South Bay Enlargement Facilities Water System Revenue Bonds <sup>e</sup> |          | Tehachapi 2nd Afterbay Facilities Water System Revenue Bonds <sup>e</sup> |          | Grand Total |  |
|---------------|--------------------------------|----------|-------------------------------------|----------|--------------------------------------------|----------|------------------------------------------|----------|------------------------------------------------|----------|-----------------------------------------------------------------|----------|-----------|----------|--------------------------------------------|----------|---------------------------------------------------|----------|--------------------------------------------------|----------|------------------------------------------------|----------|-------------------------------------------------------------------------|----------|---------------------------------------------------------|----------|--------------------------------------------------------------------------|----------|--------------------------------------------------------------------------|----------|---------------------------------------------------------------------------|----------|-------------|--|
|               | Principal                      | Interest | Principal                           | Interest | Principal                                  | Interest | Principal                                | Interest | Principal                                      | Interest | Principal                                                       | Interest | Principal | Interest | Principal                                  | Interest | Principal                                         | Interest | Principal                                        | Interest | Principal                                      | Interest | Principal                                                               | Interest | Principal                                               | Interest | Principal                                                                | Interest | Principal                                                                | Interest | Principal                                                                 | Interest |             |  |
| 1964          | 0                              | 3,333    | 0                                   | 0        | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 3,333    | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 3,333    |             |  |
| 1965          | 0                              | 11,114   | 0                                   | 0        | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 11,114   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 11,114   |             |  |
| 1966          | 0                              | 18,764   | 0                                   | 0        | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 18,764   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 18,764   |             |  |
| 1967          | 0                              | 26,911   | 0                                   | 0        | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 26,911   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 26,911   |             |  |
| 1968          | 0                              | 37,761   | 0                                   | 3,876    | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 41,637   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 41,637   |             |  |
| 1969          | 0                              | 47,460   | 0                                   | 10,448   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 57,908   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 57,908   |             |  |
| 1970          | 0                              | 53,290   | 0                                   | 13,145   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 66,435   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 66,435   |             |  |
| 1971          | 0                              | 63,035   | 0                                   | 13,145   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 0         | 76,180   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 76,180   |             |  |
| 1972          | 0                              | 69,149   | 1,260                               | 13,112   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 1,260     | 82,261   | 0                                          | 0        | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 1,260                                                                     | 82,261   |             |  |
| 1973          | 1,200                          | 69,347   | 1,330                               | 13,042   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 2,530     | 82,389   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 2,530    | 90,095      |  |
| 1974          | 3,000                          | 69,533   | 1,400                               | 12,969   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 4,400     | 82,502   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 4,400    | 90,210      |  |
| 1975          | 5,000                          | 69,366   | 1,475                               | 12,893   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 6,475     | 82,259   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 6,475    | 89,967      |  |
| 1976          | 7,000                          | 69,657   | 1,555                               | 12,811   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 8,555     | 82,468   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 8,555    | 90,176      |  |
| 1977          | 10,200                         | 69,298   | 1,635                               | 12,727   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 11,835    | 82,025   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 11,835   | 89,733      |  |
| 1978          | 12,700                         | 69,286   | 5,775                               | 12,537   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 18,475    | 81,823   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 18,475   | 89,531      |  |
| 1979          | 13,650                         | 68,660   | 11,585                              | 12,275   | 0                                          | 0        | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 25,235    | 80,935   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 25,235   | 88,643      |  |
| 1980          | 16,050                         | 67,941   | 3,265                               | 11,739   | 0                                          | 7,900    | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 19,315    | 87,580   | 0                                          | 7,708    | 0                                                 | 0        | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 19,315   | 95,288      |  |
| 1981          | 18,050                         | 67,078   | 4,885                               | 11,444   | 0                                          | 7,292    | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 22,935    | 85,814   | 0                                          | 7,708    | 0                                                 | 5,312    | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 22,935   | 98,834      |  |
| 1982          | 19,250                         | 66,130   | 17,920                              | 10,968   | 0                                          | 7,292    | 0                                        | 0        | 0                                              | 0        | 0                                                               | 0        | 37,170    | 84,390   | 0                                          | 7,708    | 0                                                 | 14,347   | 0                                                | 0        | 0                                              | 0        | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 37,170   | 106,445     |  |
| 1983          | 20,520                         | 65,111   | 21,110                              | 10,147   | 0                                          | 7,292    | 0                                        | 2,449    | 0                                              | 3,727    | 0                                                               | 0        | 41,630    | 88,726   | 900                                        | 7,708    | 0                                                 | 35,719   | 0                                                | 4,777    | 0                                              | 6,017    | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 42,530   | 142,947     |  |
| 1984          | 21,785                         | 64,036   | 10,005                              | 9,013    | 640                                        | 7,292    | 0                                        | 4,198    | 0                                              | 3,727    | 0                                                               | 0        | 32,430    | 88,266   | 955                                        | 7,647    | 0                                                 | 35,719   | 0                                                | 5,647    | 0                                              | 10,315   | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 33,385   | 147,594     |  |
| 1985          | 22,555                         | 62,892   | 12,700                              | 8,628    | 675                                        | 7,238    | 0                                        | 4,198    | 0                                              | 3,727    | 0                                                               | 0        | 35,930    | 86,683   | 1,010                                      | 7,583    | 9,425                                             | 27,209   | 0                                                | 5,647    | 0                                              | 10,315   | 0                                                                       | 0        | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 46,365   | 137,437     |  |
| 1986          | 23,830                         | 61,705   | 11,435                              | 7,859    | 715                                        | 7,377    | 0                                        | 4,263    | 0                                              | 3,537    | 0                                                               | 0        | 35,980    | 84,741   | 1,070                                      | 7,515    | 3,805                                             | 32,882   | 0                                                | 5,516    | 1,240                                          | 10,315   | 0                                                                       | 4,021    | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 42,095   | 144,990     |  |
| 1987          | 25,495                         | 60,452   | 11,715                              | 7,188    | 790                                        | 7,513    | 265                                      | 4,329    | 0                                              | 3,348    | 0                                                               | 4,952    | 38,265    | 87,782   | 1,135                                      | 7,442    | 4,860                                             | 32,605   | 0                                                | 5,386    | 1,305                                          | 10,253   | 0                                                                       | 9,651    | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 45,565   | 153,119     |  |
| 1988          | 26,770                         | 59,120   | 6,685                               | 6,664    | 830                                        | 7,447    | 280                                      | 4,314    | 345                                            | 3,348    | 710                                                             | 11,037   | 35,620    | 91,930   | 1,205                                      | 7,366    | 5,065                                             | 32,295   | 580                                              | 5,521    | 1,390                                          | 10,849   | 995                                                                     | 9,875    | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 44,855   | 157,836     |  |
| 1989          | 28,145                         | 57,790   | 33,705                              | 5,513    | 875                                        | 7,378    | 295                                      | 4,298    | 365                                            | 3,328    | 1,148                                                           | 14,373   | 64,533    | 92,680   | 1,275                                      | 7,284    | 7,820                                             | 27,557   | 709                                              | 5,646    | 1,565                                          | 11,592   | 1,078                                                                   | 10,104   | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 76,980   | 154,863     |  |
| 1990          | 29,385                         | 56,436   | 10,385                              | 4,301    | 930                                        | 7,305    | 320                                      | 4,279    | 405                                            | 3,304    | 1,227                                                           | 19,555   | 42,652    | 95,180   | 1,355                                      | 7,198    | 6,675                                             | 29,781   | 761                                              | 5,596    | 1,678                                          | 11,491   | 1,134                                                                   | 10,048   | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 54,255   | 159,294     |  |
| 1991          | 30,365                         | 55,034   | 12,055                              | 3,922    | 980                                        | 7,227    | 335                                      | 4,257    | 430                                            | 3,276    | 2,129                                                           | 27,569   | 46,294    | 101,285  | 1,435                                      | 7,107    | 7,170                                             | 29,302   | 818                                              | 5,535    | 1,791                                          | 11,376   | 1,197                                                                   | 16,856   | 0                                                       | 0        | 0                                                                        | 0        | 0                                                                        | 0        | 0                                                                         | 58,705   | 171,461     |  |
| 1992          | 31,745                         | 54,193   | 14,135                              | 2,985    | 2,395                                      | 5,308    | 1,260                                    | 3,086    | 960                                            | 2,553    | 5,108                                                           | 28,411   | 55,603    | 96,536   | 1,520                                      | 7,010    | 8,950                                             | 27,188   | 1,934                                            | 4,136    | 4,5                                            |          |                                                                         |          |                                                         |          |                                                                          |          |                                                                          |          |                                                                           |          |             |  |



## **Chapter 15**

# **SWP Education and Information**

*V*ista del Lago Visitors Center



## Significant Events in 2005

The Department of Water Resources (DWR) welcomed 27 foreign tours with 362 visitors to State Water Project (SWP) and other facilities; there also were a number of domestic and school tours to the SWP Delta Facilities. Tour groups came from all over the United States and nine foreign countries.

The Public Affairs Office (PAO) began coverage of the historic process to renew the federal license to operate Oroville facilities, the heart of the SWP. Director Snow signed the application, which was the culmination of five years of collaboration between stakeholders.

During May, DWR observed Water Awareness Month for the eighteenth consecutive year, highlighting activities at DWR facilities and answering media inquiries regarding water awareness.

*DWR NEWS/People* initiated the State Water Contractors Profile feature.

Brochures for Lake Oroville Recreation, Lake Oroville Recreation Sports Version, and the California State Water Project were revised and reprinted.

Information for this chapter was provided by the Public Affairs Office

The Public Affairs Office (PAO) serves as liaison between the Department of Water Resources (DWR), the news media and the public. One role of the PAO is to provide education to those from the outside about DWR's mission and programs. Sophisticated graphics, video, and photography units play an important role in the outreach process, as do publications, websites, visitors centers, tours, exhibits, and special events.

## Media Outreach

### Relicensing Oroville Facilities

PAO began coverage of the historic process to renew its federal license to operate the Oroville Facilities, the heart of the State Water Project (SWP). Director Snow signed the application, which was the culmination of five years of collaboration between stakeholders.

### Snow Surveys

PAO continued to provide media outreach for the Division of Flood Management Snow Surveys Section.

### California Bay-Delta Authority

PAO assisted the California Bay-Delta Authority (CBDA) in media and outreach activities. This included providing public address system support for public hearings, meetings, and conferences.

### News Events

- In January, DWR increased the 2005 allocation to 60 percent for water delivery to the SWP contractors. The initial allocation was 40 percent of requested water delivery amounts.
- In February, DWR accepted 168 of 174 proposals seeking grants through the 2004 Water Use Efficiency Proposal Solicitation Package.
- In March, DWR was forced to delay the

re-opening of Vista del Lago Visitors Center at Pyramid Lake because of a landslide. It had been closed temporarily to repair damage due to previous mudslides.

- In April, DWR announced the results of the final snow survey for 2005. Snow depth and water content ranged from 168 percent to 190 percent of average.
- In May, DWR closely monitored river conditions throughout Northern California. Heavy rainfall and snowmelt pushed many rivers to near or above flood stage.
- In June, DWR and the Oroville Area Chamber of Commerce held a ribbon-cutting ceremony for the Oroville Forebay Aquatic Center grand opening. The Aquatic Center offers aquatic programs for the public, including boat rentals and camps for kids.
- In July, DWR provided emergency response assistance at Wheeler Island, in the Suisun Marsh, following a levee break. The marshy area is under the jurisdiction of Reclamation District 2127, and there were no residences or other significant structures affected during the incident.
- In August, DWR launched the Salton Sea Ecosystem Restoration website to document the development of a restoration plan for the Salton Sea ecosystem, and accompanying Environmental Impact Report (EIR).
- In early September, DWR co-sponsored the Sacramento Flood Conference.

Officials from California, Nevada, and Hawaii gathered to discuss structural and non-structural solutions to flood challenges.

- In October, DWR and the Department of Fish and Game (DFG) released the Delta Smelt Action Plan, prepared to identify causes and find solutions for pelagic organism decline in the Delta. DWR also announced it would move forward with plans to repair seismic instability found in Perris Dam. This decision was made after an independent panel concurred with DWR's findings.
- In November, DWR launched the South Delta Improvements Program (SDIP) website to provide information and a means for the public to provide feedback on hearings held through January 2006.
- On December 27, DWR announced a flood alert. By New Year's Eve, major storms forced evacuations on Twitchell Island.

## Community Relations

### Oroville

PAO staff continued to provide media outreach for Oroville community meetings related to DWR's application for a new federal license to operate Oroville facilities. PAO maintained the Lake Oroville recreation website, <http://www.lakeoroville.water.ca.gov>, which provides information about the lake's recreational opportunities and other area facilities and attractions. In addition, PAO provided photography for the City of Oroville and the Oroville Area Chamber of Commerce for various community events.

The PAO design group produced promotional materials for Oroville area

activities including the Fourth of July community celebration, Feather River Fiesta Days, and September Salmon Festival. Products included posters, interactive educational displays, promotional displays, and informative handouts. The photography unit captured event activities for use in various publications, including DWR NEWS/People. Audio-visual staff assisted the public in using a fishing simulator (an interactive device complete with fishing pole and video screen that provided participants with a virtual reality fishing experience). The video group created public service announcements about events and distributed them to radio and television stations in the Oroville and Chico areas.

### California Lakes and Reservoirs Appreciation Week

DWR collaborated with the Department of Boating and Waterways (DBW) to share expenses in publicizing California Lakes and Reservoirs Appreciation Week. DWR distributed promotional flyers and wristbands designed to highlight the week and educate water users at California state parks and reservoirs operated by DWR, U.S. Army Corps of Engineers (the Corps), and U.S. Bureau of Reclamation (Reclamation). The message for 2005 focused on clean water.

### ***SWP Publications***

In 2005, brochures for Lake Oroville Recreation, Lake Oroville Recreation Sports Version, and the California State Water Project were revised and reprinted.

### ***E-News***

PAO continued to distribute "clips" of newspaper articles on California water

issues, via e-mail. These clips were e-mailed to DWR employees under the heading of California Water News. DWR answered a wide range of questions from the public and government agencies through its web-based "comment line." PAO administered Recent News at <http://www.dwr.water.ca.gov>; posted news releases; news advisories; and new web sites.

### ***DWR NEWS/People***

DWR's quarterly magazine, *DWR NEWS/People*, spotlighted DWR programs, projects, individual and team accomplishments, skills, awards, promotions, retirements, and other news items. In addition to initiating the State Water Contractors Profile feature, articles featured in 2005 included the Eureka Flood Center, Federal Energy Regulatory Commission (FERC) Seventh Part 12 Dam Safety Inspection Report, Oroville Relicensing Application Signing, New Runner at Oroville's Hyatt Power Plant, Skinner Fish Facility Trash Racks, Mudslides and Oil Spill in Southern California, South Bay Enlargement Project, Colorado River Basin Drought, Lower Yuba River Accord, McCune Station Open House, Global Warming's Possible Impacts, Lake Kaweah Project, and Oroville's Aquatic Boathouse Opening. In summer 2005, staff began story selection and photo research for DWR's 50th Anniversary edition, to be printed in 2006.

*DWR NEWS/People* is circulated to all elements of the California water community, including SWP contractors and current and retired employees of DWR. All 2005 issues of *DWR NEWS/People* magazine were placed on DWR's website at <http://www.publicaffairs.water.ca.gov/dwrnewsletter/>.

### **Video**

The video group released *Water for Tomorrow*, a companion video to California Water Plan Update 2005, and *Rough Water Ahead* to complement the 2005 Flood White Paper, Flood Warnings: Responding to California's Flood Crisis. *The Power of Water* was produced for the Division of SWP Planning and Management. In addition, a 30-second public service announcement (PSA) was produced for the annual salmon festival in Oroville, as well as an educational piece on the Oroville Fish Hatchery, which ran eight minutes. The video group worked with DWR's webmaster to place video clips on DWR's "Aquanet" website, including a promotional video for the "Catch A Special Thrill for Kids" (C.A.S.T.) program. The Aquatic Adventure Camps at San Luis, Oroville, and Lake Perris were also documented on film. In an ongoing effort, the video group continued transitioning the video tape library to DVD.

### **Photography**

Photographs were taken throughout the State to supplement articles for *DWR NEWS/People*. Photos were taken of the Salton Sea and Colorado River for use in departmental reports and presentations. In addition, photographs were taken to document the December 2005 New Year's Eve flood event.

Also continuing in 2005 were digital imaging and photographic support for Oroville facilities relicensing.

### **Audio-Visual**

PAO's audio-visual unit provided public address system support for numerous meetings.

## Community Outreach

As one of the agencies supporting the C.A.S.T. program, DWR employees continued to promote and volunteer at events throughout the state.

## SWP Tours

During 2005, DWR welcomed 27 foreign tours with 362 visitors to the SWP and other facilities; there also were a number of domestic and school tours to the SWP Delta Facilities. Tour groups came from all over the United States and nine foreign countries: Afghanistan, Argentina, Australia, Brazil, China, Germany, Iraq, Japan, and South Korea. The Delta Tour program for DWR employees, part of the DWR Training Program, was suspended for 2005 because of the lack of 15 passenger vans in the General Services Garage. Figure 15-1 shows SWP visitors centers.

## Displays and Exhibits

### Oroville Field Division

In 2005, new aluminum based interpretive display panels were installed at the fish hatchery. These panels replaced the previous ones damaged through material failure. Displays offer the hatchery visitor a self-guided tour of the facility and facility operations.

Bidwell Toll House was converted into a small museum with artifacts, and low-tech and static displays on the history of the toll house and bridge. The work was done for the Department of Parks and Recreation (DPR) under the FERC relicensing agreement.

### Delta Field Division

In 2005, PAO staff installed Phase 1 exhibits for the Delta Field Division Administration. The exhibit features the history of the Sacramento-San Joaquin Delta, SWP, Banks Pumping Plant, hydropower, environmental programs, Skinner Fish Facility, and salinity control. Phase 2 is expected to be completed in 2006, and will include a new map of the Delta.

### San Luis Field Division

In 2005, PAO staff installed Phase 1 exhibits for DPR at Romero Visitors Center. Display panels and cabinetry featured artifacts of local California Native Americans in and around the San Luis area and recreation and wildlife in the San Luis Recreation Area. Phase 2 is expected to be completed in 2006. Replicated Native American artifacts and a diorama for wildlife display will be included.

### Oral History Program

Retired annuitants Art Winslow and Ernie James have traveled hundreds of miles to compile oral histories of persons significant in DWR's development and history. PAO staff continues work on this project by writing biographies and completing a catalog from 150 interviews.

## School Education Program

The School Education Program's goal is to provide students and educators with a statewide perspective on water issues such as conservation, conveyance systems, and the water cycle. PAO staff develops and promotes high quality materials, and provides them free of charge to schools, educators, and water districts.

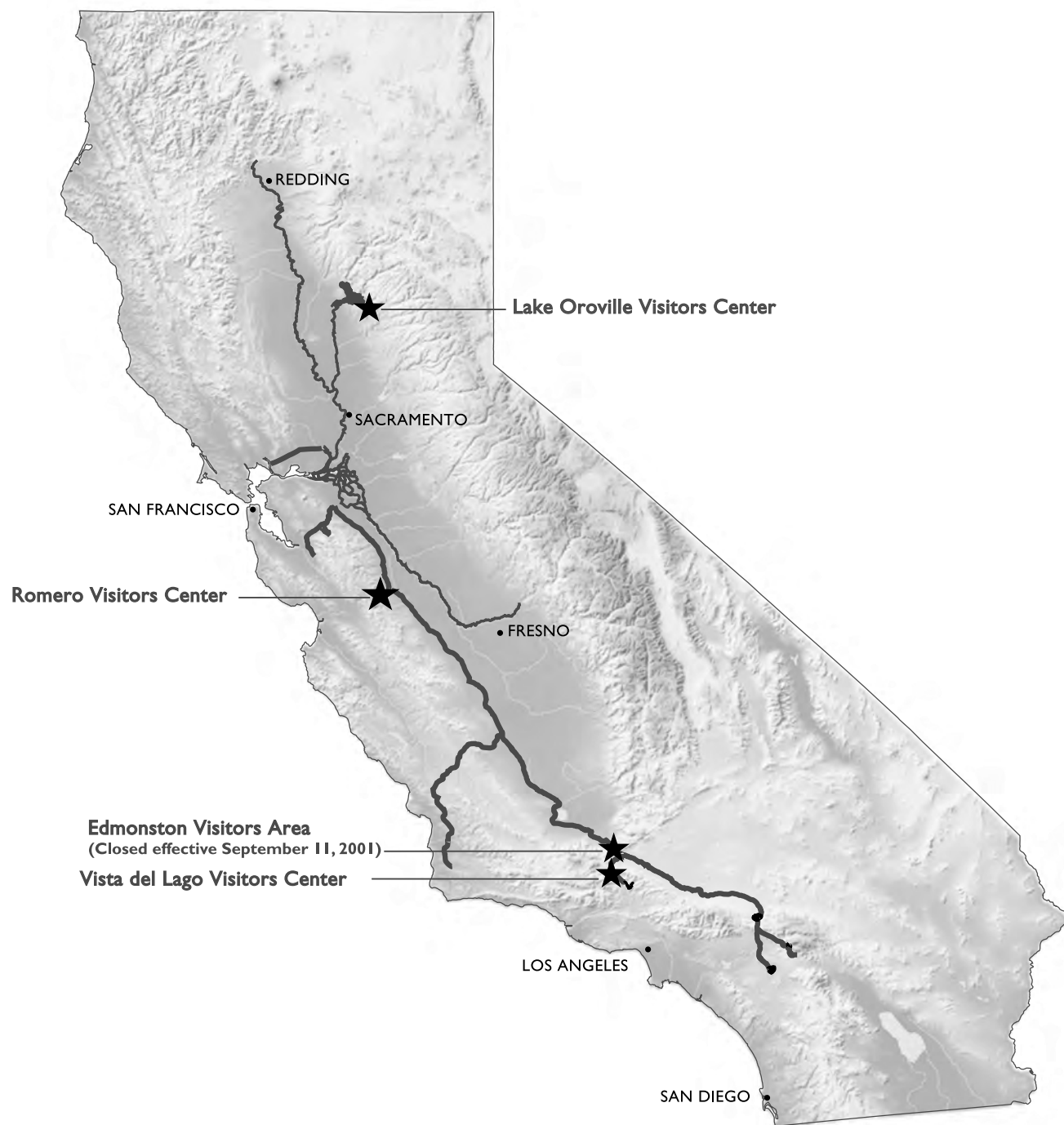


**Figure 15-1. Visitors Centers on the SWP**

Program achievements for 2005 include providing a display of DWR's Interactive Children's Exhibits at the Urban Creeks Council's Creek Week event held at the Sacramento Discovery Center (April); assisting at DWR's Oroville Fourth of July booth; State Fair booth (August/September); and Salmon Festival (September); conducting water safety activities for children at Preparedness Day Event at Office of Emergency Services (September); staffing exhibit for the California Native American Days event at the Sacramento Convention Center (September); and exhibiting DWR's educational materials and videos at the California Science Teachers Association Conference in Palm Springs (October).

Additional program achievements for 2005 include providing curriculum materials and children's videos to California teachers and water agencies through the Water Facts and Fun online ordering catalog and promotional events; revising and reprinting the *Water Facts and Fun* catalog of materials for teachers and students; purchasing 12,000 Captain Hydro Water Conservation books and 10,000 Water Fun books for students; reprinting 10,000 *California Water Works and Why It Does...* books for students; providing Project WET books to teachers who participate in Project WET training workshops.

In 2005, the School Education Program was actively involved in presenting DWR's School Education Program to the California Regional Environmental Education Community (CREEC) Conference in Santa Barbara (January); participating on the Water Awareness Education Subcommittee and providing the printing of Unit #4 on Water Use Efficiency for elementary students; participating and assisting at

Water Education Committee meeting, hosted by the Contra Costa Water District in April, and the Marina Coast Water District in October; and participating on the Project Water Education for Teachers (WET) Advisory Committee, the Creek Week Planning Committee, and CEEIN Committee.

In 2005, PAO staff worked on producing brochures for the California Environmental Education Interagency Network (CEEIN) and providing artwork for a poster, brochures, and a bookmark for the Creek Week Event.

The School Education Program also co-sponsored and provided support for the following:

- the development of the Discover Storm Water booklet for students in cooperation with Project WET and others;
- the Environmentality Campaign for fifth grade students, in conjunction with the State of California and the Walt Disney Corporation;
- the California Department of Education's Regional Environmental Education Coordinators Network; and
- the Delta Studies Institute for teachers, co-sponsored with the San Joaquin County Office of Education.

## Water Awareness Month Activities

During May 2005, DWR observed Water Awareness Month for the eighteenth consecutive year. PAO news releases highlighted activities at DWR facilities, and public information officers answered media inquiries regarding water awareness.

**Appendix B**  
**Data and Computations**  
**Used to**  
**Determine 2007 Water Charges**

---

**Contents**

|                                                                 | <b>Page</b> |
|-----------------------------------------------------------------|-------------|
| Types of Water Charges .....                                    | B-1         |
| Composition and Timing of Water Charges .....                   | B-4         |
| Bases for Allocating Reimbursable Costs Among Contractors ..... | B-6         |
| Capital and Minimum OMP&R Costs .....                           | B-8         |
| Variable OMP&R Costs .....                                      | B-8         |
| Water Conveyance .....                                          | B-9         |
| Bases for Reimbursable Costs .....                              | B-11        |
| Capital Costs .....                                             | B-11        |
| Annual Operating Costs .....                                    | B-12        |
| Transportation and Devil Canyon-Castaic Contract Costs .....    | B-12        |
| Conservation Capital and Operating Costs .....                  | B-13        |
| Project Water Charges .....                                     | B-13        |
| Transportation Charges .....                                    | B-13        |
| Delta Water Charges .....                                       | B-17        |
| Water System Revenue Bond Surcharge .....                       | B-17        |
| Total Water Charges .....                                       | B-17        |
| Equivalent Total Water Charges .....                            | B-20        |
| Equivalent Water Costs by Reach .....                           | B-20        |
| East Branch Enlargement Facility Charges .....                  | B-20        |
| Short-Term Agreements .....                                     | B-22        |

**Figures**

|     |                                                                                     |     |
|-----|-------------------------------------------------------------------------------------|-----|
| B-1 | Relationships of Data Used to Substantiate Statements of Charges .....              | B-2 |
| B-2 | Relationships of Data Used to Substantiate East Branch Enlargement<br>Charges ..... | B-3 |
| B-3 | Composition of Delta Water Charge and Transportation Charge .....                   | B-5 |
| B-4 | Repayment Reaches and Descriptions .....                                            | B-7 |

**Tables**

|   |                                                                                         |      |
|---|-----------------------------------------------------------------------------------------|------|
| 1 | Summary of Permanent Aqueduct Capacity Transfers .....                                  | B-9  |
| 2 | Project Purpose Cost Allocation Factors .....                                           | B-11 |
| 3 | Criteria for Amortizing Capital Costs of Transportation Facilities .....                | B-14 |
| 4 | Minimum OMP&R Costs of Reach 31A Assigned Directly to Kern<br>County Water Agency ..... | B-15 |
| 5 | Summary of Off-Aqueduct Power Facility Charges and Credits .....                        | B-15 |



## Tables (continued)

|       |                                                                                                                                                             | Page  |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 6     | Projected Charges for Off-Aqueduct Power Facilities .....                                                                                                   | B-16  |
| 7     | Kilowatt-Hour Per Acre-Foot Factors for Allocating Off-Aqueduct<br>Power Facility Costs .....                                                               | B-16  |
| 8     | Extra Peaking Charges for Additional Power, by Pumping Plant .....                                                                                          | B-18  |
| 9     | Extra Peaking Charges for Additional Power, by Contractor .....                                                                                             | B-19  |
| 10    | Determination of Factors for Distributing Capital and Minimum<br>OMP&R Costs of East Branch Enlargement Facilities<br>Among Participating Contractors ..... | B-21  |
| B-1   | Factors for Distributing Reach Capital Costs Among Contractors .....                                                                                        | B-24  |
| B-2   | Factors for Distributing Reach Minimum OMP&R Costs Among Contractors ..                                                                                     | B-26  |
| B-3   | Power Costs and Credits, Transmission Costs, and Annual Replacement<br>Deposits for Each Aqueduct Pumping and Power Recovery Plant .....                    | B-28  |
| B-4   | Annual Table A Amounts to Project Water .....                                                                                                               | B-30  |
| B-5A  | Annual Water Quantities Delivered from Each Aqueduct Reach to<br>Each Contractor. ....                                                                      | B-34  |
| B-5B  | Annual Water Quantities Delivered to Each Contractor .....                                                                                                  | B-50  |
| B-6   | Annual Water Quantities Conveyed Through Each Pumping and Power<br>Recovery Plant of Project Transportation Facilities. ....                                | B-54  |
| B-7   | Reconciliation of Capital Costs Allocated to Water Supply<br>and Power Generation(data not available) .....                                                 | B-64  |
| B-8   | SWP Capital Costs of Requested Delivery Structures. ....                                                                                                    | B-65  |
| B-9   | Capital Costs of Requested Excess Peaking Capacity .....                                                                                                    | B-66  |
| B-10  | Capital Costs of Each Aqueduct Reach to be Reimbursed Through<br>Capital Cost Component of Transportation Charge .....                                      | B-68  |
| B-11  | Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through<br>Minimum OMP&R Component of Transportation Charge .....                               | B-76  |
| B-12  | Variable OMP&R Costs to be Reimbursed Through Variable OMP&R<br>Component of Transportation Charge .....                                                    | B-84  |
| B-13  | Capital and Operating Costs of Project Conservation Facilities to be<br>Reimbursed Through Delta Water Charge .....                                         | B-87  |
| B-14  | Capital Costs of Transportation Facilities Allocated to Each Contractor .....                                                                               | B-88  |
| B-15  | Capital Cost Component of Transportation Charge for Each Contractor .....                                                                                   | B-92  |
| B-16A | Minimum OMP&R Component of Transportation Charge for Each Contractor .                                                                                      | B-96  |
| B-16B | Minimum OMP&R Component of Transportation Charge for Each<br>Contractor for Off-Aqueduct Power Facilities .....                                             | B-100 |
| B-17  | Unit Variable OMP&R Component of Transportation Charge .....                                                                                                | B-104 |
| B-18  | Variable OMP&R Component of Transportation Charge for Each Contractor ..                                                                                    | B-108 |
| B-19  | Total Transportation Charge for Each Contractor .....                                                                                                       | B-112 |
| B-20A | Calculation of Delta Water Rates .....                                                                                                                      | B-116 |
| B-20B | Delta Water Rates by Facility .....                                                                                                                         | B-117 |
| B-21  | Total Delta Water Charge for Each Contractor .....                                                                                                          | B-118 |
| B-22  | Water System Revenue Bond Surcharge for Each Contractor .....                                                                                               | B-122 |
| B-23  | Total Transportation and Delta Water Charge for Each Contractor .....                                                                                       | B-126 |
| B-24  | Equivalent Unit Charge for Water Supply for Each Contractor .....                                                                                           | B-130 |
| B-25  | Equivalent Unit Transportation Costs of Water Delivered<br>From or Through Each Aqueduct Reach. ....                                                        | B-131 |

## Tables (continued)

|      |                                                                                                                                                        | Page  |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| B-26 | Capital Costs of Each Aqueduct Reach to be Reimbursed Through the Capital Cost Component of the East Branch Enlargement Transportation Charge .....    | B-132 |
| B-27 | Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through Minimum OMP&R Component of the East Branch Enlargement Transportation Charge ..... | B-134 |
| B-28 | Capital Costs of East Branch Enlargement Transportation Facilities Allocated to Each Contractor .....                                                  | B-136 |
| B-29 | Capital Cost Component of the East Branch Enlargement Facilities Transportation Charge for Each Contractor.....                                        | B-137 |
| B-30 | Minimum OMP&R Component of East Branch Enlargement Facilities Transportation Charge for Each Contractor .....                                          | B-138 |
| B-31 | Total East Branch Enlargement Facilities Transportation Charge for Each Contractor .....                                                               | B-139 |



**Appendix B**  
**Data and Computations**  
**Used to**  
**Determine 2007 Water Charges**



## Appendix B

### Data and Computations

#### Used to

#### Determine 2007 Water Charges

---

The Department of Water Resources (DWR) annually furnishes Statements of Charges to the 29 long-term State Water Project (SWP) water supply contractors. Article 29(e) of the Standard Provisions for Water Supply Contracts, approved August 3, 1962, describes those statements:

*All such statements shall be accompanied by the latest revised copies of the document amendatory to Article 22 and of Tables B, C, D, E, F, and G of this contract, together with such other data and computations used by the State in determining the amounts of the above charges as the State deems appropriate.*

To comply with Article 29(e), DWR performs an annual comprehensive review and redetermination of all water supply and financial aspects of the SWP for the entire project repayment period. This annual redetermination is performed in accordance with Article 22(f) and Article 28 of the water supply contracts, which concern the Delta Water Rate and annual transportation charges, respectively.

Appendix B includes data used to document the redetermination of water charges to be paid by contractors during calendar year 2007. The information is based on established data about the SWP, both known and projected, as of June 30, 2006.

The computational procedures and interrelationships between tabulations in this appendix are outlined in Figure B-1 and Figure B-2. All tables referenced in Figures B-1 and B-2 follow this text.

#### Types of Water Charges

Charges to SWP water supply contractors include the costs of facilities for the conservation and development of a water supply and the conveyance of such supply to SWP service areas. These facilities are classified as "Project Conservation Facilities" and "Project Transportation Facilities" in the Standard Provisions for Water Supply Contract. The names of the main facilities in each classification follow.

##### Project Conservation Facilities

- Frenchman Dam and Lake
- Grizzly Valley Dam and Lake Davis
- Antelope Dam and Lake
- Oroville Dam and Lake Oroville
- Oroville power facilities
- Delta Facilities
- A portion of the California Aqueduct from the Delta to Dos Amigos Pumping Plant
- Sisk Dam, San Luis Reservoir, and Gianelli Pumping-Generating Plant

##### Project Transportation Facilities

- Grizzly Valley Pipeline
- North Bay Aqueduct
- South Bay Aqueduct, including Del Valle Dam and Lake Del Valle
- Remainder of the California Aqueduct from the Delta to Dos Amigos Pumping Plant and all facilities south, including dams and lakes in Southern California
- Off-Aqueduct Power Facilities (Reid Gardner Unit No. 4, Bottle Rock Power Plant, and South Geysers Power Plant)

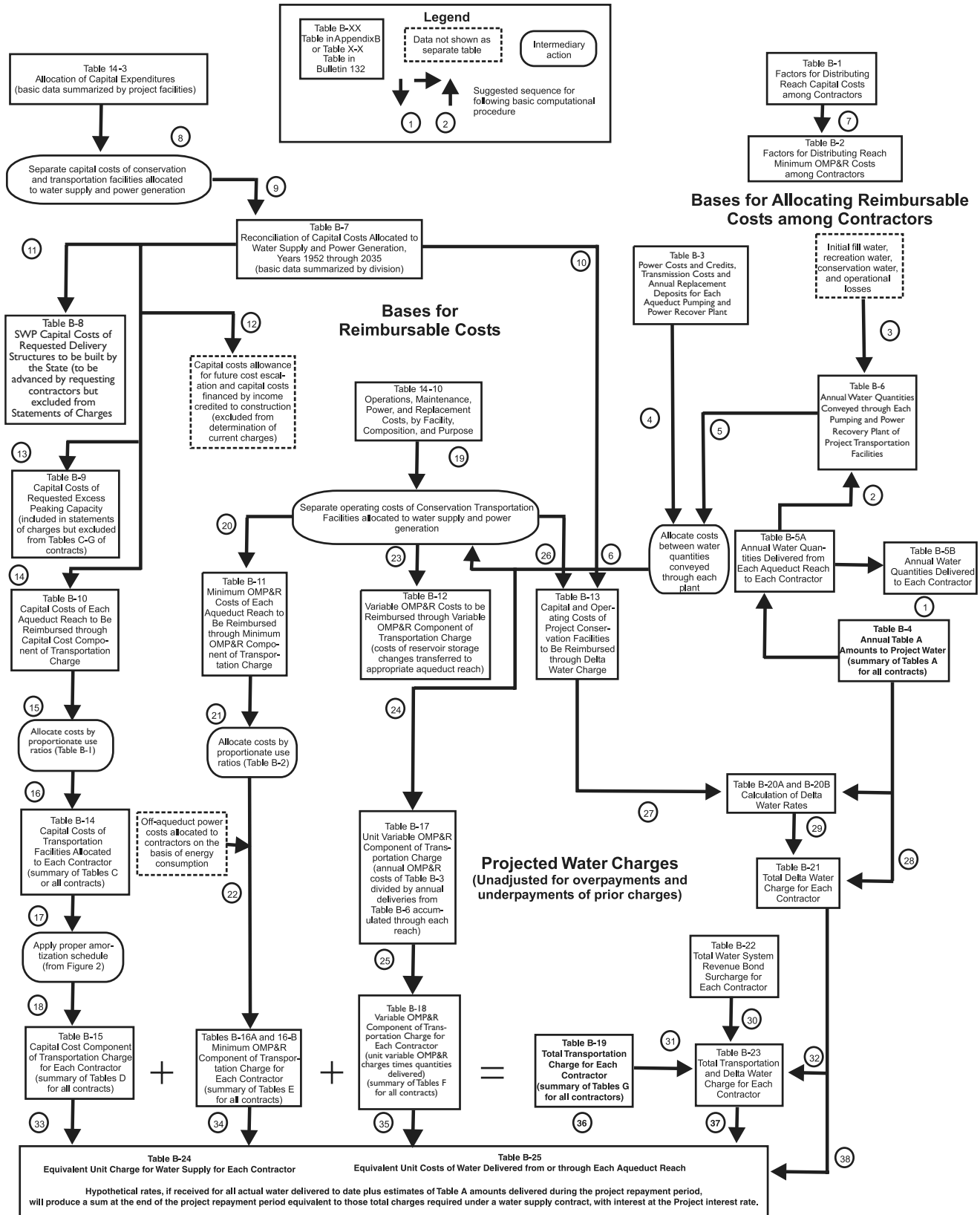


**Figure B-I. Relationships of Data Used to Substantiate Statements of Charges**

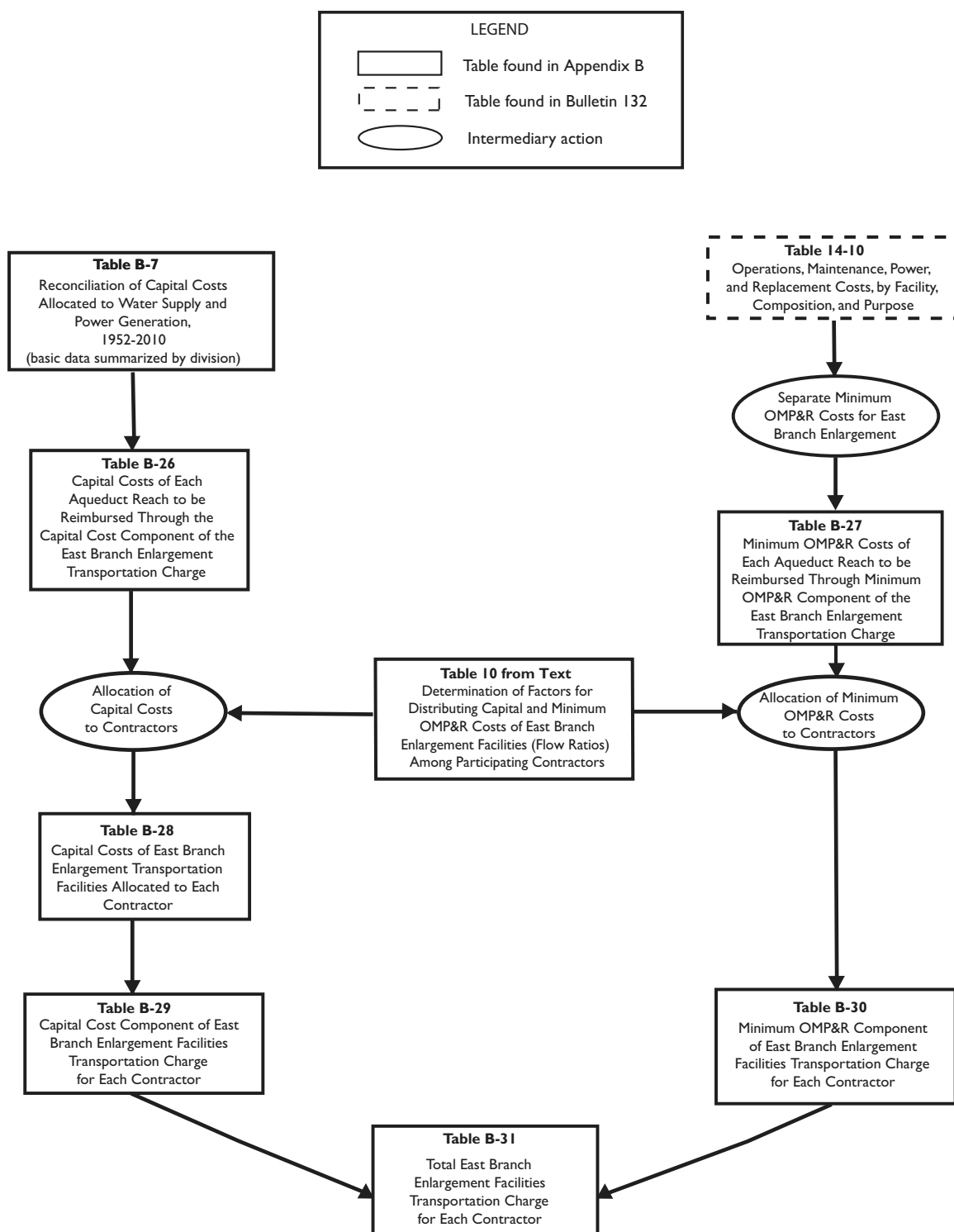


**Figure B-2. Relationships of Data Used to Substantiate East Branch Enlargement Charges**



The standard provisions provide for a Delta Water Charge and a Transportation Charge for project water.

The Delta Water Charge is a unit charge applied to each acre-foot of SWP water the contractors are entitled to receive according to their contracts. The unit charge, if applied to each acre-foot of all such allocations for the remainder of the project repayment period, is calculated to result in repayment of all outstanding reimbursable costs of the Project Conservation Facilities, with appropriate interest, by the end of the repayment period (2035).

The Transportation Charge is for use of facilities to transport water to the vicinity of each contractor's turnout. Generally, the annual charge represents each contractor's proportionate share of the reimbursable capital costs and operating costs of the Project Transportation Facilities.

Each contractor's allocated share of those reimbursable capital costs is amortized for repayment to the State; and certain variations are allowed in the amortization methods. Essentially, the contractors' shares of reimbursable operating costs are repaid in the year such costs are incurred by the State.

The East Branch Enlargement Transportation Charge is paid by the seven Southern California contractors participating in the enlargement. San Bernardino Valley Municipal Water District advanced funds to pay the district's allocated capital costs for the East Branch Enlargement. The remaining six contractors pay an allocated share of the debt service on revenue bonds sold to finance the enlargement. Each contractor also will pay an allocated share of the minimum operation, maintenance, power, and replacement costs of the East Branch Enlargement.

Transportation charges for the Coastal Branch Extension, East Branch Extension, and South Bay Enlargement are being repaid by contractors in their respective service areas.

Transportation charges for the Tehachapi Afterbay is repaid by those contractors using electrical power for delivery of their Table A water.

## Composition and Timing of Water Charges

As shown in Figure B-3, the Delta Water Charge and the Transportation Charge consist of the following three components:

- (1) Conservation and Transportation capital cost components, which will return to the State all reimbursable capital costs;
- (2) Conservation and Transportation minimum OMP&R components, which will return to the State all reimbursable operating costs that do not depend on or vary with quantities of water actually delivered to the contractors; and
- (3) A Transportation variable OMP&R component, which will return to the State all reimbursable operating costs that depend on, and vary with, quantities of water actually delivered to the contractors.

The formula for computing the Delta Water Rate, Article 22(f) of the Standard Provisions for Water Supply Contract, was designed to ensure that all adjustments for prior overpayments or underpayments of the Delta Water Charge are accounted for in a redetermination of the rate. Since the redetermined rate applies to all future allocations, such adjustments are amortized during the remainder of the project repayment period. This appendix includes a redetermination of the Delta Water Rate for 2007.

Article 28 of the standard provisions stipulates that Transportation Charges be redetermined each year. The tables in Appendix B include the numerical data used in this redetermination. Transportation Charges for prior years through 2005 included in those tables are the redetermined amounts and do not equal the amounts actually paid by contractors.

As provided under the Water System Revenue Bond Amendment to the water supply contracts, differences between actual payments under the Transportation capital cost component and amounts computed in this redetermination are accumulated with interest and

**Delta Water Charge***Capital Cost Component*

1. Planning, design, right-of-way, and construction costs of Conservation Facilities
2. Operations and maintenance costs for newly constructed Conservation Facilities prior to initial operations
3. Activation costs for newly constructed Conservation Facilities
4. Power costs allocated to initial filling of San Luis Reservoir
5. Capitalized O&M costs (major repair work and so forth) for Conservation Facilities
6. Program costs (portion) to mitigate impacts on current Delta fishery population due to SWP pumping prior to 1986 (Department of Water Resources-Department of Fish and Game agreement)

*Minimum OMP&R Component*

1. Direct O&M costs of Conservation Facilities
  - a. Headquarters and field divisions (portion)
  - b. Insurance and FERC costs (portion)
2. General O&M costs allocated to Conservation Facilities
  - a. Contractor Accounting Office (portion)
  - b. Financial and contract administration (portion)
  - c. Water rights
  - d. Power planning for SWP facilities (portion)
3. Replacement deposits for SWP control centers (portion)
4. Credits for a portion of Hyatt-Thermalito power generation
5. Power costs and credits related to pumping water to San Luis Reservoir for project operations (storage changes)
6. Value of power used and generated by Gianelli Pumping-Generating Plant
7. Program costs (portion) to offset annual fish losses resulting from pumping at Banks Pumping Plant (Department of Water Resources-Department of Fish and Game agreement)

**Transportation Charge***Capital Cost Component*

1. Planning, design, right-of-way, and construction costs of Transportation Facilities
2. O&M costs for newly constructed Transportation Facilities prior to initial operation
3. Activation costs for newly constructed Transportation Facilities
4. Power costs allocated to initial filling of Southern California reservoirs
5. Capitalized O&M costs (major repair work and so forth) for Transportation Facilities
6. Program costs (portion) to mitigate impacts on current Delta fishery population due to SWP pumping prior to 1986 (Department of Water Resources-Department of Fish and Game agreement)

*Minimum OMP&R Component*

1. Direct O&M costs of Transportation Facilities
  - a. Headquarters and field divisions (portion)
  - b. Insurance and FERC costs (portion)
2. General O&M costs related to Transportation Facilities
  - a. Contractor Accounting Office (portion)
  - b. Financial and contract administration (portion)
  - c. Power planning for SWP facilities (portion)
3. Power costs and credits related to pumping water to Southern California reservoirs for project operations (storage changes)
4. Power costs for pumping water to replenish losses from Transportation Facilities
5. Other power costs
  - a. Station service at Transportation Facility power and pumping plants
  - b. Transmission service costs related to "backbone" Transportation Facilities
6. Replacement deposits for SWP control centers (portion)
7. Off-Aqueduct Power Facility costs—bond service, bond cover costs (25 percent of bond service), bond reserves, transmission costs to provide service to "backbone," fuel costs taxes, and O&M-less power sales allocated to Off-Aqueduct Power Facilities
8. Program costs (portion) to offset annual fish losses resulting from pumping at Banks Pumping Plant (Department of Water Resources-Department of Fish and Game agreement)

*Variable OMP&R Component*

1. Power purchase costs
  - a. Capacity
  - b. Energy
  - c. Pine Flat bond service, O&M, and transmission costs allocated to aqueduct pumping plants
2. Alamo, Devil Canyon, Warne, and Castaic power generation credited at the power plant reach and charged to aqueduct pumping plants
3. Hyatt-Thermalito Diversion Dam power plant generation charged to aqueduct pumping plants (credits for this generation are reflected in the Delta Water Rate)
4. Replacement deposits for equipment at pumping plants and power plants
5. Credits from sale of excess SWP system power
6. Program costs (portion) to offset annual fish losses resulting from pumping at Banks Pumping Plant (Department of Water Resources-Department of Fish and Game agreement)

Note: Excludes costs recovered under the East Branch Enlargement Transportation Charge.

**Figure B-3. Composition of Delta Water Charge and Transportation Charge**

amortized during the remaining years of the contract repayment period. All computations for adjustments are included in the attachments accompanying each contractor's Statement of Charges and are reflected in revised copies of Table C through Table G of the contract, which are also furnished to each long-term water supply contractor in the annual Statements of Charges.

These redeterminations exclude four charges associated with water service other than the Delta Water Charge and the Transportation Charge. The excluded charges (and the manner in which such excluded charges are treated in this appendix) are:

- (1) Advances of funds pursuant to Article 24(d) of the standard provisions for excess capacity constructed by the State at the request of contractors.
- (2) Advances of funds pursuant to Article 10(d) of the standard provisions for delivery structures (turnouts) constructed by the State at the request of contractors. Partial information concerning actual and projected capital costs of such delivery structures is included in this appendix. Statements concerning these costs and data are furnished to the appropriate contractors at various times and are not part of the annual statements.
- (3) Payments for sale and service of surplus water to entities other than contractors, pursuant to Article 21 of the standard provisions, are also excluded. Those payments are generally based on the unit rates shown in Table B-25. Net revenues resulting from noncontractor service are applied as indicated on page 24 of Bulletin 132-71.
- (4) Payments under the Devil Canyon-Castaic contract for costs of the Devil Canyon-Castaic facilities allocable to power generation. Charges billed as a result of the contract are billed separately from those billed as a result of the water supply contract. Information about the treatment of such charges in relation to redetermined Transportation Charges is included in special

attachments to the bills of the six participating contractors.

The time and method of payment for corresponding components of the Delta Water Charge and the Transportation Charge are as follows:

- (1) The capital cost components of the Delta Water Charge and the Transportation Charge are paid in two semiannual installments, due January 1 and July 1 of each year, based on statements furnished by the State on or before July 1 of the preceding year.
- (2) The minimum OMP&R components of the Delta Water Charge and the Transportation Charge are paid in 12 equal installments, due the first of each month and based on statements furnished by the State on or before July 1 of the preceding year.
- (3) The variable OMP&R component of the Transportation Charge is paid in varying monthly amounts and is due the fifteenth day of the second month following actual water delivery. The charges are projected based on a unit charge per acre-foot established on or before July 1 of the preceding year. Those unit charges may be revised during the year to reflect current power costs and revenues. The unit charges are applied to actual monthly delivery quantities as determined by the State on or before the fifteenth day of the month following actual delivery.

### **Bases for Allocating Reimbursable Costs Among Contractors**

This section describes the procedures for allocating reimbursable costs of Project Transportation Facilities among contractors (see upper right portion of Figure B-1). Those costs do not include annual costs of Off-Aqueduct Power Facilities, which are explained in the section "Project Water Charges."

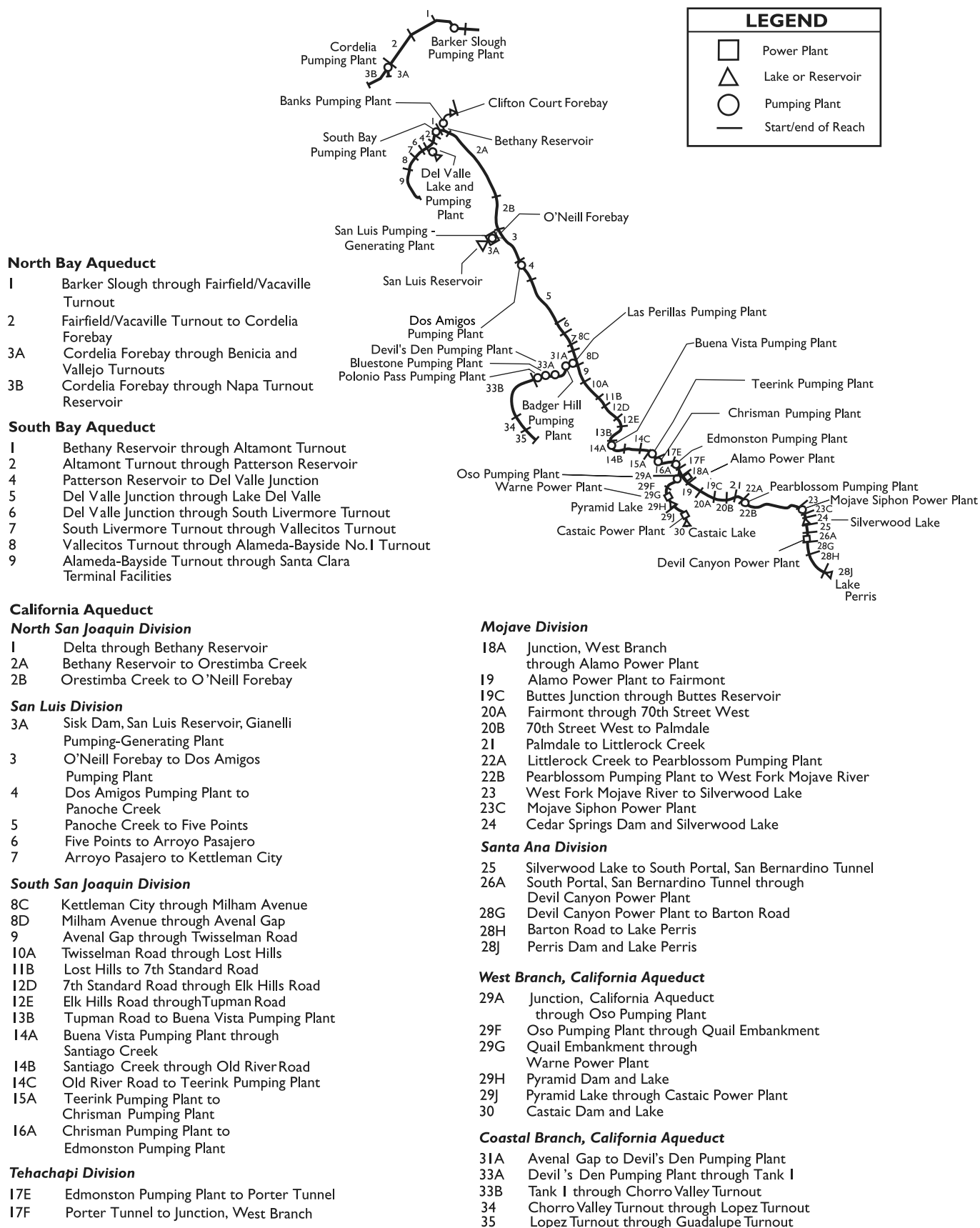


Figure B-4. Repayment Reaches and Descriptions

## Capital and Minimum OMP&R Costs

Figure B-4 includes information about the repayment reaches that form the basis for allocating reimbursable costs of the Project Transportation Facilities among contractors.

Allocations of reimbursable capital costs and minimum OMP&R costs of each reach are based on the proportionate maximum use of that reach by respective contractors under planned conditions of full development.

The derivation of ratios that represent the proportionate maximum use of each aqueduct reach by the respective contractors was first reported in Bulletin 132-70. The ratios in Bulletin 132-70 were subsequently revised for the North Bay Aqueduct, the South Bay Aqueduct, the California Aqueduct from the Delta to Castaic Lake, and the Coastal Branch.

All the revisions reported in previous bulletins regarding the derivation of ratios that represent the proportionate maximum use of each aqueduct reach by the respective contractors were last reported in Tables B-1 and B-2 of Bulletin 132-91. Under Article 53 of the Monterey Amendment, Agricultural contractors may sell up to 130,000 acre-feet of aqueduct capacity to Municipal and Industrial contractors. The first permanent transfer occurred in 1998. Currently, 114,000 acre-feet of the allowable capacity has been transferred. Table 1 shows the permanent capacity transfers that have taken place since 1995.

*Table B-1* presents the reach ratios currently applicable to reimbursable capital costs.

*Table B-2* presents corresponding ratios for allocating 2007 and after reimbursable minimum OMP&R costs among contractors. Requested excess capacity is omitted when deriving ratios applicable to capital costs because the capital costs for the excess capacity are paid on an

incremental-cost basis and not a proportionate-use basis. However, requested excess capacity is accounted for in the ratios applicable to minimum OMP&R costs.

## Variable OMP&R Costs

Article 26(a) includes provisions to ensure that the variable OMP&R component of the Transportation Charge will result in a return to the State of those costs that depend on and vary with the amount of SWP water deliveries. (The minimum OMP&R component results in a return of those operating costs that do not vary with deliveries.) Under Article 26(a) all such costs for a reach for a given year will be allocated among contractors in proportion to the actual annual use of that reach by the respective contractors.

*Table B-3* summarizes the total power costs, credits, and transmission costs for each aqueduct pumping and power recovery plant. Those variable costs consist of:

- Costs of capacity and energy used exclusive of associated power transmission and station service charges (transmission and station service costs that are not, depend and vary with power usage classified as minimum OMP&R costs);
- Credits for capacity and energy produced at aqueduct power recovery plants (treated as negative costs);
- Payments for replacement of major plant machinery components having economic lives shorter than the project repayment period. In 1997, DWR discontinued charging for a sinking fund for replacements. Replacement costs for 1999 and thereafter are to be paid on an annual basis as the costs are incurred; and
- Starting in 2005, a portion of transmission expenditures will depend and vary with water and power usage; these costs will be included as part of the variable component.

**Table 1. Summary of Permanent Aqueduct Capacity Transfers**

| Contractor                              |                | Capacity Transfer         |                       | Transfer Description                                   |
|-----------------------------------------|----------------|---------------------------|-----------------------|--------------------------------------------------------|
| <i>Seller</i>                           | <i>Buyer</i>   | <i>Amount (acre-feet)</i> | <i>Effective Year</i> |                                                        |
| Transfers under Monterey Amendment      |                |                           |                       |                                                        |
| Kern                                    | Mojave         | 25,000                    | 1998                  | Purchased capacity upstream of Reach 31A               |
| Kern                                    | Castaic Lake   | 41,000                    | 2000                  | Purchased capacity upstream of Reach 16A               |
| Kern                                    | Palmdale       | 4,000                     | 2000                  | Purchased capacity upstream of Reach 11B               |
| Kern                                    | Alameda Zone-7 | 7,000                     | 2000                  | Purchased capacity upstream of Reach 10A               |
| Kern                                    | Alameda Zone-7 | 15,000                    | 2000                  | Purchased capacity upstream of Reach 10A               |
| Kern                                    | Alameda Zone-7 | 10,000                    | 2001                  | Purchased capacity upstream of Reach 11B               |
| Kern                                    | Solano         | 5,756                     | 2001                  | Purchased capacity upstream of Reach 11B and Reach 31A |
| Kern                                    | Napa           | 4,025                     | 2001                  | Purchased capacity upstream of Reach 11B and Reach 31A |
| Kern                                    | Alameda Zone-7 | 2,219                     | 2004                  | Purchased capacity upstream of Reach 11B               |
| Subtotal Under Article 53               |                | 114,000                   |                       |                                                        |
| Transfers outside of Monterey Amendment |                |                           |                       |                                                        |
| Tulare                                  | Dudley Ridge   | 3,973                     | 2002                  | Purchased capacity upstream of Reach 8D                |
| Tulare                                  | AVEK           | 3,000                     | 2002                  | Purchased capacity upstream of Reach 8D                |
| Tulare                                  | Alameda Zone-7 | 400                       | 2003                  | Purchased capacity upstream of Reach 8D                |
| Tulare                                  | Kings          | 5,000                     | 2004                  | Purchased capacity upstream of Reach 8D                |
| Tulare                                  | Coachella      | 9,900                     | 2004                  | Purchased capacity upstream of Reach 8D                |
| MWDSC                                   | Coachella      | 88,100                    | 2005                  | Purchased capacity upstream of Reach 28J               |
| MWDSC                                   | Desert         | 11,900                    | 2005                  | Purchased capacity upstream of Reach 28J               |
| Tulare                                  | Kings          | 305                       | 2006                  | Purchased capacity upstream of Reach 31A               |
| Subtotal Outside of Article 53          |                | 122,578                   |                       |                                                        |

Table B-3 excludes plant capacity and energy costs associated with surplus and unscheduled water service after May 1, 1973. Prior to that date, surplus water service was charged the same unit variable OMP&R component as allocated water service. An amendment to the long-term water supply contracts in 1973 significantly changed the rate structure for surplus water service. Capacity and energy costs for pumping surplus and unscheduled water were allocated directly to those water contractors receiving surplus and unscheduled water service. A contract amendment in 1991 again revised the rate structure to provide for payment of costs through a melded power rate. These revisions to charges for surplus and unscheduled water are effective from the date of the amendments and are not applied to past charges.

An interruptible water program was established in 1994. This program is based on individual annual contracts; costs for interruptible water actually delivered are included in Table B-3.

## Water Conveyance

The water conveyance quantities that form the basis for allocating costs are presented in Tables B-4, B-5A, B-5B, and B-6.

*Table B-4* presents the schedules of annual allocations as set forth in Table A and Article 6(a) of each water supply contract.

*Table B-5A* shows amounts of actual and projected allocated water quantities delivered from each aqueduct reach to each contractor. Projected deliveries for years 2006 through 2035 are based on contractors' requests for future water deliveries. The quantities included in Table B-5A also include nonproject water delivered to contractors and surplus water deliveries prior to May 1, 1973, and actual interruptible water deliveries in 1994 and after.

*Table B-5B* presents a summary of actual and projected annual allocated water quantities delivered or to be delivered to each contractor. The quantities also include amounts of nonproject water and surplus water delivered prior to May 1, 1973, and actual deliveries of interruptible water in 1994 and after.

Table B-6 summarizes the annual allocated water quantities conveyed or to be conveyed through each aqueduct pumping plant or power plant for each of the following functions:

- *Deliveries-Water Supply.* Water made available to contractors at down aqueduct delivery structures, including certain hypothetical quantities to facilitate cost allocations, for those years when deliveries are made from net annual storage withdrawals. The net annual amounts of storage withdrawals are hypothetically added to the actual amounts conveyed from the Delta to the reservoirs, since deliveries made from storage withdrawals bear the same variable OMP&R costs per acre-foot as they would if the deliveries were actually conveyed from the Delta in that year. The hypothetical increases in the deliveries made from reservoir storage withdrawals are offset by equal credits to the minimum OMP&R costs of the respective reservoirs. Thus, the variable OMP&R components per acre-foot (Table B-17) may be applied to the total annual quantities delivered either from aqueduct reservoir storage or from the Delta.
- *Initial Fill Water.* Water required for initial filling of down aqueduct reaches and reservoirs or for repayment of pre-consolidation water used during construction.
- *Deliveries-Recreation.* Water delivered to down-aqueduct recreation developments or used for fish and wildlife mitigation or enhancement.
- *Operational Losses.* Water lost through evaporation and seepage from all down aqueduct reaches.
- *Reservoir Storage Changes.* Water placed in down-aqueduct reservoir storage after initial filling of the reservoirs, including projected net annual storage accretions (positive values) and withdrawals (negative values) for all down-aqueduct reservoirs of the Project Transportation Facilities.

Those variable OMP&R costs (Table B-12) that are allocable to storage accretions are assigned to the minimum OMP&R costs of the respective reservoirs. With the exception of Banks Pump-

ing Plant, "Reservoir Storage Changes" also includes SWP water placed into Southern California groundwater storage from 1978 through 1982 (as positive amounts); and water withdrawn from storage and delivered to contractors in 1979, 1982, 1987, 1988, and 1989 (as negative amounts). At Banks Pumping Plant, groundwater additions and withdrawals are included in "Conservation Water."

Table B-6 also summarizes the following two amounts under the heading "Conservation Water" (Column 25):

- (1) net annual water amounts stored and projected to be stored in San Luis Reservoir; and
- (2) water lost and projected to be lost through evaporation and seepage from San Luis Reservoir and from the water conservation portion of the California Aqueduct.

"Conservation Water" includes initial fill water, operational losses, and net annual storage changes associated with San Luis Reservoir and the portion of the California Aqueduct that is allocated to conservation. The same allocation procedure outlined above for Transportation Facilities also applies to water delivered from storage in Conservation Facilities, except that the hypothetical cost increases are added to the variable OMP&R cost to be reimbursed through the Transportation Charge and deducted from the minimum OMP&R costs to be reimbursed through the Delta Water Charge.

San Luis Reservoir is operated to conserve water for future delivery to downstream contractors. To account for costs associated with reservoir storage, those power and replacement costs of Banks Pumping Plant (a joint Transportation-Conservation Facility) that are allocated to the conveyance of annual conservation water quantities are transferred to the capital costs of San Luis Reservoir (during initial fill) or to the minimum OMP&R costs of San Luis Reservoir (subsequent to initial fill).

In years of net storage withdrawal from San Luis Reservoir, a portion of the minimum OMP&R cost of

**Table 2. Project Purpose Cost Allocation Factors (Percentages)**

| Project Facilities                                             | Water Supply and Power Generation |                     | All Other Purposes (Nonreimbursable) |                     |
|----------------------------------------------------------------|-----------------------------------|---------------------|--------------------------------------|---------------------|
|                                                                | Capital Costs                     | Minimum OMP&R Costs | Capital Costs                        | Minimum OMP&R Costs |
| <b>Project Conservation Facilities</b>                         |                                   |                     |                                      |                     |
| Frenchman Dam and Lake                                         | 21.5                              | 0.0                 | 78.5                                 | 100.0               |
| Antelope Dam and Lake                                          | 0.0                               | 0.0                 | 100.0                                | 100.0               |
| Grizzly Valley Dam and Lake Davis                              | 1.0                               | 1.8                 | 99.0                                 | 98.2                |
| Oroville Division <sup>a</sup>                                 | 97.1                              | 99.5                | 2.9                                  | 0.5                 |
| California Aqueduct, Delta to Dos Amigos Pumping Plant         | 96.6                              | 96.7                | 3.4                                  | 3.3                 |
| Delta Facilities                                               | 86.0                              | 86.0                | 14.0                                 | 14.0                |
| <b>Transportation Facilities</b>                               |                                   |                     |                                      |                     |
| Grizzly Valley Pipeline                                        | 100.0                             | 100.0               | 0.0                                  | 0.0                 |
| North Bay Aqueduct                                             | 100.0                             | 100.0               | 0.0                                  | 0.0                 |
| South Bay Aqueduct                                             |                                   |                     |                                      |                     |
| Del Valle Dam and Lake Del Valle                               | 25.2                              | 22.0                | 74.8 <sup>b</sup>                    | 78.0 <sup>c</sup>   |
| Remainder of South Bay Aqueduct                                | 100.0                             | 100.0               | 0.0                                  | 0.0                 |
| California Aqueduct                                            |                                   |                     |                                      |                     |
| Delta to Dos Amigos Pumping Plant                              | 96.6                              | 96.7                | 3.4                                  | 3.3                 |
| Dos Amigos Pumping Plant to termini (excluding Coastal Branch) | 94.3                              | 96.9                | 5.7                                  | 3.1                 |
| Coastal Branch                                                 | 100.0                             | 100.0               | 0.0                                  | 0.0                 |

<sup>a</sup> Percentages indicated are applicable to the remaining costs of division after excluding costs allocated to flood control that are reimbursed by the federal government (22 percent of capital costs) and excluding specific power costs of Hyatt and Thermalito power plants and switchyards.

<sup>b</sup> Percentage indicated consists of 48.8 percent of costs allocated to recreation and 26.8 percent to flood control.

<sup>c</sup> Percentage indicated consists of 44.9 percent of costs allocated to recreation and 33.1 percent to flood control.

the reservoir is transferred to the variable OMP&R cost of Banks Pumping Plant. That transfer is equal to the variable OMP&R cost per acre-foot of delivery through Banks Pumping Plant for that year, multiplied by the acre-feet of deliveries derived from San Luis Reservoir storage for that year. Table B-6 also includes amounts of nonproject water and surplus water delivered prior to May 1, 1973, and actual deliveries of interruptible water in 1994 and after.

## Bases for Reimbursable Costs

This section describes the methods used to derive the costs allocated by the procedures outlined in the preceding section. A diagram of the cost derivation process is shown in the upper-left quadrant of Figure B-1.

First, the capital and minimum OMP&R costs of all SWP facilities are allocated among the various project purposes according to the allocation percentages in Table 2. Those percentages may be subject to revision in the future.

The redeterminations in this appendix involve only the SWP costs that are allocated to water supply and power generation.

## Capital Costs

Capital costs used in the redeterminations in this appendix reflect prices prevailing on December 31, 2005; future cost escalation will be reflected in subsequent bulletins.

Table B-7 presents a reconciliation of estimated total capital costs of each Project Conservation Facility and each Project Transportation Facility. This table shows the relationship of Project Conservation and Transportation costs allocated to contractors (Tables B-8, B-9, B-10, and B-13) to the total SWP capital costs projected by DWR.

Table B-8 shows costs incurred and projected to be incurred by the State in connection with each contractor's turnouts. Costs incurred by the State for both State-constructed and contractor-constructed delivery structures are paid directly by the contractors for which the structures are



built. (The State incurs design review and construction inspection costs in connection with contractor-constructed turnouts.)

*Table B-9* lists costs and payments for excess capacity built into SWP Transportation Facilities according to amendments to contracts with Metropolitan Water District of Southern California, San Gabriel Valley Municipal Water District, and AVEK as follows:

- additional costs incurred by the State for requested excess capacity;
- advances by water contractors of funds for such costs; and
- credits for advances in excess of costs, which were applied to respective contractors' installments of the capital cost component of the Transportation Charge in 1981.

Under Amendment 2 of Metropolitan's contract, 809 cfs of excess capacity was originally constructed in reaches of the West Branch at Metropolitan's request. That capacity was reclassified as basic capacity of SWP Transportation Facilities under Amendment 7. Metropolitan paid \$16.3 million as a prepayment of the capital cost component of the Transportation Charge in lieu of advancing funds for the original requested capacity.

Amendment 5 to Metropolitan's contract requires that additional costs for modifications to the Santa Ana Pipeline (required for enlargement of Lake Perris) will be allocated to Metropolitan and returned to the State through payments of the Transportation Charge. The additional costs to be repaid through Metropolitan's capital cost component for the aqueduct reach from Devil Canyon Power Plant to Barton Road total about \$6.7 million (see Bulletin 132-72, page 98).

*Table B-10* presents the actual and projected annual capital costs of each aqueduct reach that will eventually be returned to the State, with interest, through contractors' payments of the capital cost component of the Transportation

Charge and payment of debt service under the Devil Canyon-Castaic contracts.

### **Annual Operating Costs**

Annual operating costs allocable to water supply and power generation are returned to the State through the minimum and variable OMP&R components of Delta Water and Transportation Charges and through a portion of the revenues from energy sales. All reimbursable operating costs of Conservation Facilities are included in the minimum OMP&R component of the Delta Water Charge.

### **Transportation and Devil Canyon-Castaic Contract Costs**

*Table B-11* shows the amounts of the actual and projected costs to be reimbursed through payments of the minimum OMP&R component of the Transportation Charge and allocated operating costs under the Devil Canyon-Castaic contract. The table includes the following seven types of operating costs incurred annually that do not vary with water quantities delivered to the contractors:

- (1) all direct labor charges for field operation and maintenance personnel, including associated indirect costs;
- (2) a distributed share of general operating costs that cannot be identified solely with one facility or aqueduct reach;
- (3) all of electric power transmission and station service costs up to 2004, and electric power transmission and station service costs for 2005 and after that do not vary with power usage allocable to aqueduct pumping and recovery plants;
- (4) all costs for equipment, materials, and supplies;
- (5) portions of the power and replacement costs of all up-aqueduct pumping plants and power plants that are allocable to the annual conveyance of water lost to evaporation and seepage from respective aqueduct reaches or placed into storage in

- respective reservoirs of the project transportation facilities (after initial fill);
- (6) credits, which offset those costs in (5) above, for deliveries drawn from reservoir storage; and
  - (7) escalation of projected operating costs at 5 percent per year for 2006, 2007, and 2008.

*Table B-12* shows the portions of variable OMP&R costs in *Table B-3* that are allocable to the water supply delivery quantities included in *Table B-6* and reimbursed through payments of the variable OMP&R component of the Transportation Charge.

The following five adjustments are made to *Table B-3* costs to derive *Table B-12* costs:

- (1) Part of the variable OMP&R costs of each plant is allocated to recreation. The allocation to recreation is in proportion to the quantity of water conveyed through each plant each year for delivery to on-shore recreational developments. That portion of variable plant costs attributable to the initial fill of aqueduct reaches is allocated to the joint capital costs of respective down-aqueduct reaches and reservoirs.
- (2) That portion of costs attributable to evaporation and seepage is allocated to the joint minimum OMP&R costs of respective down-aqueduct reaches and reservoirs.
- (3) Adjustments are made for additions or withdrawals from storage in aqueduct reservoirs. In years when water is added to storage in aqueduct reservoirs, the cost of conveying this water into storage is charged to the minimum OMP&R costs of the corresponding reservoir. In years when storage in aqueduct reservoirs is decreased for the purpose of making deliveries, a credit is applied to the minimum OMP&R costs of the reservoir from which the storage is released. This credit is equal to the number of acre-feet of storage reduction times the variable OMP&R unit rate for the year storage is released. The unit rate is equal to the variable OMP&R unit rate for the year the water is taken from storage.

- (4) That portion of costs attributable to pumping water to replace evaporation and seepage losses and for additions or withdrawals from storage in San Luis Reservoir is charged to the minimum OMP&R component of the Delta Water Rate.

The remaining costs are allocated to Transportation water supply and repaid by the contractors.

### **Conservation Capital and Operating Costs**

*Table B-13* is a summary of actual and projected capital and operating costs of the initial Project Conservation Facilities. These costs are reimbursed through payments by contractors under the Delta Water Charge, Oroville power sales, and Gianelli Generating Plant credits. *Table B-13* also shows credits applied to the reimbursable capital costs of the Project Conservation Facilities according to negotiated settlements concerning incurred planning costs for the period from 1952 through 1978.

### **Project Water Charges**

This section describes the redetermination of past and projected components of the Transportation Charge for annual revision of *Tables C* through *G* of each water supply contract. This section also describes the derivation of the unit Delta Water Rates and the Water System Revenue Bond Surcharge.

A summary of equivalent unit charges for each acre-foot of allocated water service is also included for each contractor and each aqueduct reach. A diagram of all calculations may be found in the lower half of *Figure B-1*.

### **Transportation Charges**

The accumulation of allocated costs of each aqueduct reach to each contractor is the basis for the Transportation Charge components.

*Table B-14* summarizes each contractor's share of the capital costs of aqueduct reaches presented in *Table B-10*. Those amounts are determined by applying proportionate-use ratios set forth in *Table B-1* to the costs in *Table*

B-10. The resulting allocated costs are set forth in Table C of the respective water supply contracts.

Prepayments of the capital cost component, required under Metropolitan's Amendment 7, are included as negative capital costs in Table B-14 and Table C of Metropolitan's Statement of Charges. Solano, Empire-West Side Irrigation District, and Crestline also prepaid capital costs (see Table B-14 footnotes). Table B-14 includes costs of the planned East Branch Extension to provide water service to San Bernardino Valley Municipal Water District and San Geronio Pass Water Agency.

Both Table B-14 and Table C of the six contractors for project water service below Devil Canyon Power Plant and Castaic Power Plant include the capital costs reimbursable under the Devil Canyon-Castaic contract.

Table B-15 summarizes capital cost components of the Transportation Charge for each contractor for each year of the project repayment period. By the year 2035, the capital cost components shown in Table B-15 will recover the costs shown in Table B-14, with interest at the Project Interest Rate of 4.608 percent per annum and based on the amortization schedules included in Table 3.

Those estimated components, subsequently adjusted for prior overpayments or underpayments, are included in Table D of the water supply contracts. Costs of excess capacity are billed separately and are not included in Table B-15.

Table B-15 includes the debt service payments due from the six contractors down aqueduct from Devil Canyon Power Plant and Castaic Power Plant according to terms of the Devil Canyon-Castaic contract.

Table B-16A summarizes the minimum OMP&R components of the Transportation Charge for each year of the project repayment period. Those estimated components, subsequently adjusted for prior overpayments or underpayments, are included in Table E of the respective contracts.

The total amounts included in Table B-16A are determined by applying the proportionate-use ratios in Table B-2 to the reach costs in Table B-11.

**Table 3. Criteria for Amortizing Capital Costs of Transportation Facilities**

| Contractor                                                            | Year of Initial Payment <sup>a</sup> |
|-----------------------------------------------------------------------|--------------------------------------|
| Alameda County Flood Control and Water Conservation District - Zone 7 | 1963 <sup>b</sup>                    |
| Alameda County Water District                                         | 1963                                 |
| Antelope Valley-East Kern Water Agency                                | 1963                                 |
| Castaic Lake Water Agency                                             | 1964                                 |
| City of Yuba City                                                     | <sup>c</sup>                         |
| Coachella Valley Water District                                       | 1964                                 |
| County of Butte                                                       | <sup>c</sup>                         |
| County of Kings                                                       | 1968                                 |
| Crestline-Lake Arrowhead Water Agency                                 | 1964                                 |
| Desert Water Agency                                                   | 1963 <sup>d</sup>                    |
| Dudley Ridge Water District                                           | 1968 <sup>e</sup>                    |
| Empire-West Side Irrigation District                                  | 1968 <sup>e</sup>                    |
| Kern County Water Agency                                              |                                      |
| Agricultural Use                                                      | 1968 <sup>e</sup>                    |
| Municipal and Industrial Use                                          | 1965                                 |
| Littlerock Creek Irrigation District                                  | 1964                                 |
| Metropolitan Water District of Southern California                    | 1963                                 |
| Mojave Water Agency                                                   | 1964                                 |
| Napa County Flood Control and Water Conservation District             | 1966                                 |
| Oak Flat Water District                                               | 1968 <sup>e</sup>                    |
| Palmdale Water District                                               | 1964                                 |
| Plumas County Flood Control and Water Conservation District           | 1970                                 |
| San Bernardino Valley Municipal Water District                        | 1963                                 |
| San Gabriel Valley Municipal Water District                           | 1963 <sup>d</sup>                    |
| San Geronio Pass Water Agency                                         | 1963 <sup>d</sup>                    |
| San Luis Obispo County Flood Control and Water Conservation District  | 1964 <sup>f</sup>                    |
| Santa Barbara County Flood Control and Water Conservation District    | 1964                                 |
| Santa Clara Valley Water District                                     | 1963                                 |
| Solano County Water Agency                                            | 1973                                 |
| Tulare Lake Basin Water Storage District                              | 1968 <sup>e</sup>                    |
| Ventura County Flood Control District                                 | 1964                                 |

<sup>a</sup> Allocated capital costs of transportation facilities amortized in equal annual installments unless otherwise noted.

<sup>b</sup> Principal payments on each annual capital cost prior to 1971 delayed until calendar year 1972, except payments for 1963.

<sup>c</sup> For Yuba City and Butte County payments for Delta Water Charge only.

<sup>d</sup> Payment deferred for 1963 and added to 1964 payment with accrued interest.

<sup>e</sup> For Dudley Ridge, Empire, Kern (agricultural use), Oak Flat, and Tulare, according to Article 45 of the contracts for supply of agricultural water, capital costs of transportation facilities allocated to agricultural water supply are amortized by using an equivalent unit rate per acre-foot applied to the annual allocations (Table B-4) through the project repayment period.

<sup>f</sup> For San Luis Obispo and Santa Barbara County, all principal and interest payments for costs of the Coastal Stub were deferred until 1976.

Table B-16A excludes charges for Off-Aqueduct Power Facilities, which are included separately in Table B-16B. Both Table B-16A and Table E include the operating costs payable under the Devil Canyon-Castaic contract for the six

contractors down aqueduct from Devil Canyon Power Plant and Castaic Power Plant.

**Table 4. Minimum OMP&R Costs of Reach 31A Assigned Directly to Kern County Water Agency (in dollars)**

| Year         | Direct Charges   |
|--------------|------------------|
| 1969         | 46,511           |
| 1970         | 46,302           |
| 1971         | 140,074          |
| 1972         | 95,017           |
| 1973         | 72,454           |
| 1974         | 100,692          |
| 1975         | 127,456          |
| 1976         | 138,504          |
| 1977         | 120,753          |
| 1978         | 157,652          |
| 1979         | 121,231          |
| 1980         | 150,728          |
| 1981         | 75,866           |
| 1982         | 82,805           |
| 1983         | 90,007           |
| 1984         | 107,468          |
| 1985         | 159,406          |
| 1986         | 137,241          |
| 1987         | 127,073          |
| 1988         | 130,924          |
| 1989         | 128,468          |
| 1990         | 138,234          |
| 1991         | 139,527          |
| 1992         | 185,370          |
| 1993         | 219,344          |
| 1994         | 364,196          |
| 1995         | 272,341          |
| 1996         | 322,123          |
| <b>Total</b> | <b>3,997,767</b> |

As part of operating agreements with DWR, Kern was billed from 1963 through 1987 for any additional operating costs caused by early installation of units in Las Perillas and Badger Hill Pumping Plants by Berrenda Mesa Water Storage District (see Bulletin 132-71, page 7). Under those agreements, a portion of minimum OMP&R costs of Reach 31A were assigned directly to Kern, as shown in Table 4, with the remaining reach costs allocated by application of the proportionate-use ratios. DWR purchased the last unit, Unit No. 6, at Las Perillas and Badger Hill Pumping Plants in early 1997 to provide pumping capacity for deliveries to Coastal Area contractors, which began in 1997. As a result of the Monterey Amendment Litigation, the costs related to this settlement are to be allocated among all SWP contractors in proportion to

their maximum Table A. As costs are incurred, related charges will be included in the contractors' annual Statements of Charges as part of the minimum. It is estimated that between 2002 and 2010, the total Monterey Amendment Litigation costs will be just under \$16 million.

Table B16-B summarizes the annual charges for Off-Aqueduct Power Facilities allocated to each water contractor, adjusted for prior overpayments or underpayments of charges. Those charges are to repay all Off-Aqueduct Power costs, including bond service, deposits for reserves, operation and maintenance costs, fuel costs, taxes, and insurance.

Adopted October 1, 1979, the General Bond Resolution requires that sufficient revenues be collected each year to repay all of those costs. In addition, an amount totaling 25 percent of the annual bond service is collected each year to ensure that sufficient funds are available to cover all annual costs. Any revenues collected and not needed during the year are refunded to the contractors in the next year.

Table 5 summarizes Off-aqueduct Power Facility charges and credits related to deliveries for 2005.

**Table 5. Summary of Off-Aqueduct Power Facility Charges and Credits (in dollars)**

| Charges by Item                |                    |
|--------------------------------|--------------------|
| Reid Gardner Power Plant       | 83,573,694         |
| Bottle Rock Power Plant        | 14,147,680         |
| South Geysers Power Plant      | 6,662,758          |
| <i>Subtotal</i>                | <i>104,384,132</i> |
| Credits by Item                |                    |
| Power sales                    | 21,323,935         |
| Miscellaneous water (wheeling) | 0                  |
| <i>Subtotal</i>                | <i>21,323,935</i>  |
| <b>Net Total Charge</b>        | <b>83,060,197</b>  |

Table 6 shows projected charges for Off-Aqueduct Power Facilities and an amount equal to 25 percent of annual bond service for 2006 and each year thereafter.

The annual charges for Off-Aqueduct Power Facilities are allocated among contractors in

proportion to the electrical energy required to pump allocated water for the year. The initial allocation for the Statements of Charges is based on estimates of energy to pump requested allocated water deliveries.

**Table 6. Projected Charges for Off-Aqueduct Power Facilities (in dollars)**

| Year | Total Annual Cost | 25% Bond Cover |
|------|-------------------|----------------|
| 2006 | 110,217,000       | 8,629,583      |
| 2007 | 124,268,132       | 8,677,943      |
| 2008 | 135,600,482       | 11,530,413     |
| 2009 | 135,835,148       | 11,577,346     |
| 2010 | 136,657,372       | 11,741,790     |
| 2011 | 133,497,475       | 11,117,811     |
| 2012 | 133,706,645       | 11,159,645     |
| 2013 | 78,184,633        | 5,095,243      |
| 2014 | 20,080,442        | 4,016,404      |
| 2015 | 11,900,893        | 2,380,495      |
| 2016 | 10,195,501        | 2,039,416      |
| 2017 | 9,909,157         | 2,074,413      |
| 2018 | 4,210,068         | 947,183        |
| 2019 | 4,175,070         | 927,936        |
| 2020 | 4,498,201         | 1,007,352      |
| 2021 | 6,696,392         | 1,318,209      |
| 2022 | 6,354,573         | 1,249,845      |
| 2023 | 4,520,053         | 882,941        |
| 2024 | 3,292,943         | 637,519        |
| 2025 | 244,343           | 48,399         |
| 2026 | 390,273           | 77,585         |
| 2027 | 596,893           | 118,909        |
| 2028 | 504,350           | 100,400        |
| 2029 | 497,350           | 99,000         |

An interim adjustment in the allocation of Off-Aqueduct Power costs may be made in May of each year based on updated cost estimates and April revisions in water delivery schedules. An additional adjustment is made the following year based on actual water deliveries and actual costs for the year.

The energy required to pump each contractor's water is calculated using the kilowatt-hour per acre-foot factors (shown in Table 7) for the pumping plants upstream from the delivery turnouts. The amounts include transmission losses.

Table B-17 presents a summary of actual and projected total variable OMP&R costs for each acre-foot of water conveyed through each aqueduct pumping plant and power plant for each year of the project repayment period.

Those data are derived according to the following

**Table 7. Kilowatt-Hour per Acre-Foot Factors for Allocating Off-Aqueduct Power Facility Costs**

| Pumping Plant                   | kWh per acre-foot <sup>a</sup> |                       |
|---------------------------------|--------------------------------|-----------------------|
|                                 | At Plant                       | Cumulative from Delta |
| Barker Slough                   | 223                            | 223                   |
| Cordelia-Benicia                | 434                            | 657                   |
| Cordelia-Vallejo                | 178                            | 401                   |
| Cordelia-Napa                   | 563                            | 786                   |
| Banks                           | 296                            | 296                   |
| South Bay (including Del Valle) | 869                            | 1,165                 |
| Dos Amigos                      | 138                            | 434                   |
| Buena Vista                     | 242                            | 676                   |
| Teerink                         | 295                            | 971                   |
| Chrisman                        | 639                            | 1,610                 |
| Edmonston                       | 2,236                          | 3,846                 |
| Pearblossom                     | 703                            | 4,549                 |
| Greenspot                       | 871                            | 5,420                 |
| Crafton Hills                   | 1,087                          | 6,507                 |
| Cherry Valley                   | 224                            | 6,731                 |
| Oso                             | 280                            | 4,126                 |
| Las Perillas                    | 77                             | 511                   |
| Badger Hill                     | 200                            | 711                   |
| Devil's Den                     | 705                            | 1,416                 |
| Bluestone                       | 705                            | 2,121                 |
| Polonio Pass                    | 705                            | 2,826                 |

<sup>a</sup> Includes transmission losses

procedures specified in Article 26(a) of the Standard Provisions for calculating the variable OMP&R component of the Transportation Charge:

- An annual charge per acre-foot of projected water deliveries to all contractors served from or through each reach is determined so the projected variable OMP&R costs to be incurred for each reach will be returned to the State.
- The total annual variable OMP&R component for any contractor for a given reach is obtained by multiplying the unit charge associated with that reach by the quantity of water actually delivered from or through the reach to the contractor.

The data summarized in Table B-17 are derived by dividing the costs shown in Table B-3 by the quantities of water shown in Table B-6. However, certain costs included in Table B-3 for

extra peaking service, which would otherwise constitute variable OMP&R costs, are assigned directly to contractors requesting this type of service (see Bulletin 132-71, page 21, and Water Service Contractors Council Memo No. 593, July 10, 1970). Those costs are excluded from the unit charges shown in Table B-17. Peaking charges based on additional capacity ceased in 1983. Since 1984, costs are based on market energy rates. The amounts of extra peaking charges for additional power costs are shown in Tables 8 and 9 on pages B-18 and B-19.

The unit rates shown in Table B-17 constitute the rates for the pumping plants and power plants listed. The cumulative rates constitute the total rates, cumulative from the Sacramento-San Joaquin Delta, and are applicable to deliveries from or downstream of the pumping plants and power plants. Extra peaking service costs are excluded.

*Table B-18* shows the variable OMP&R components of the Transportation Charge for each contractor for each year of the project repayment period. Table B-18 is developed from the costs per acre-foot included in Table B-17 and the delivery quantities for each contractor from each reach as indicated in Table B-5A, plus any costs for extra peaking service. Those estimated components, subsequently adjusted for prior overpayments or underpayments, are included in Table F of the respective water supply contracts.

*Table B-19* summarizes the annual Transportation Charges for each contractor (the sums of the corresponding amounts included in Tables B-15, B-16A, B-16B, and B-18). Those estimated payments, subsequently adjusted for prior overpayments or underpayments, are set forth in Table G of the respective water supply contracts.

Both Table B-19 and Table G for the six contractors down-aqueduct from Devil Canyon Power Plant and Castaic Power Plant include amounts of debt service and operating cost payments due according to provisions of the Devil Canyon-Castaic contract.

## **Delta Water Charges**

*Table B-20A* presents the calculation of the Delta Water Rate for the initial Conservation Facilities applicable in 2007 according to the amended Article 22(e) and 22(g) of all 29 contracts. The Delta Water Rate was calculated at a Project Interest Rate of 4.608 percent based on Conservation Facility costs shown in Table B-13. That Delta Water Rate is used to compute projected Delta Water Charges under Article 53(i) for the contractors who have executed the Monterey Amendment. Included in Table B-20A is the Delta Water Rate for the two contractors who have not executed the Monterey Amendment (Plumas County and Empire).

*Table B-20B* shows each component of the 2007 Delta Water Rate from Table B-20A.

*Table B-21* summarizes the annual Delta Water Charge for each contractor. The projected charges in Table B-21 are developed by multiplying the total rate per acre-foot, as shown in Table B-20A, by the amount of allocated water for each contractor as shown in Table B-4.

## **Water System Revenue Bond Surcharge**

*Table B-22* summarizes the Water System Revenue Bond Surcharge to the Delta Water Charge and the Transportation capital cost component of each contractor. The surcharge shown in Table B-22 includes the financing costs of WSRB Series B through AD. This surcharge is levied according to an amendment to the water supply contracts for repaying WSRB Surcharge financing costs. All long-term water supply contractors signed that amendment.

## **Total Water Charges**

*Table B-23* summarizes the total annual charges to each contractor (the sum of the Transportation Charge in Table B-19, the Delta Water Charge in Table B-21, and the Water System Revenue Bond Surcharge in Table B-22). The charges do not reflect past payments by contractors and are unadjusted for prior overpayments or underpayments.

**Table 8. Extra Peaking Charges for Additional Power, by Pumping Plant (Dollars)**

| Year         | Cordelia<br>Napa | Cordelia<br>Solano | Barker<br>Slough | South<br>Bay  | Banks            | Dos Amigos     | Las Perillas<br>and<br>Badger Hill | Buena<br>Vista | Teerink       | Chrisman      | Edmonston      | Pearblossom   | Oso        | Total            |
|--------------|------------------|--------------------|------------------|---------------|------------------|----------------|------------------------------------|----------------|---------------|---------------|----------------|---------------|------------|------------------|
| 1972         | 0                | 0                  | 0                | 0             | 0                | 10,579         | 24,700                             | 0              | 0             | 0             | 0              | 0             | 0          | 35,279           |
| 1973         | 0                | 0                  | 0                | 0             | 0                | 0              | 6,016                              | 0              | 0             | 0             | 0              | 0             | 0          | 6,016            |
| 1974         | 0                | 0                  | 0                | 0             | 0                | 0              | 7,140                              | 0              | 0             | 0             | 0              | 0             | 0          | 7,140            |
| 1975         | 0                | 0                  | 0                | 0             | 0                | 494            | 6,397                              | 0              | 0             | 0             | 0              | 0             | 0          | 6,891            |
| 1976         | 0                | 0                  | 0                | 0             | 0                | 0              | 1,981                              | 0              | 0             | 0             | 0              | 0             | 0          | 1,981            |
| 1977         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 1978         | 0                | 0                  | 0                | 0             | 0                | 45,145         | 3,680                              | 0              | 0             | 0             | 0              | 0             | 0          | 48,825           |
| 1979         | 0                | 0                  | 0                | 0             | 0                | 0              | 3,306                              | 0              | 0             | 0             | 0              | 0             | 0          | 3,306            |
| 1980         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 1981         | 0                | 0                  | 0                | 0             | 0                | 12,126         | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 12,126           |
| 1982         | 0                | 0                  | 0                | 0             | 0                | 89,339         | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 89,339           |
| 1983         | 0                | 0                  | 0                | 35            | 7,594            | 3,534          | 152                                | 0              | 0             | 0             | 0              | 0             | 0          | 11,315           |
| 1984         | 0                | 0                  | 0                | 2,096         | 84,396           | 38,607         | 7,203                              | 11,173         | 3,823         | 3,593         | 0              | 0             | 0          | 150,891          |
| 1985         | 0                | 0                  | 0                | 1,480         | 19,612           | 8,841          | 763                                | 4,488          | 4,412         | 8,929         | 28,353         | 0             | 0          | 76,878           |
| 1986         | 0                | 0                  | 0                | 0             | 1,864            | 863            | 0                                  | 291            | 354           | 766           | 2,683          | 0             | 0          | 6,821            |
| 1987         | 0                | 0                  | 0                | 604           | 17,129           | 7,838          | 835                                | 2,295          | 1,806         | 3,460         | 11,058         | 0             | 0          | 45,025           |
| 1988         | 639              | 39                 | 287              | 894           | 43,475           | 20,082         | 2,213                              | 5,792          | 4,367         | 8,272         | 25,886         | 0             | 0          | 111,946          |
| 1989         | 2,491            | 566                | 1,483            | 70            | 40,251           | 18,642         | 1,935                              | 3,401          | 1,531         | 2,058         | 3,793          | 0             | 0          | 76,221           |
| 1990         | 45               | 0                  | 18               | 343           | 19,524           | 9,044          | 0                                  | 150            | 145           | 314           | 643            | 0             | 0          | 30,226           |
| 1991         | 903              | 0                  | 281              | 0             | 21               | 8              | 0                                  | 15             | 17            | 39            | 139            | 41            | 0          | 1,464            |
| 1992         | 208              | 117                | 203              | 0             | 7,070            | 2,502          | 0                                  | 182            | 190           | 435           | 0              | 0             | 0          | 10,907           |
| 1993         | 0                | 681                | 889              | 4,483         | 123,080          | 54,741         | 0                                  | 8,898          | 5,458         | 10,900        | 35,068         | 11,139        | 0          | 255,337          |
| 1994         | 0                | 366                | 393              | 679           | 6,566            | 2,795          | 454                                | 1,083          | 155           | 357           | 1,121          | 0             | 132        | 14,101           |
| 1995         | 0                | 0                  | 0                | 1,717         | 24,464           | 9,422          | 27                                 | 1,865          | 3,475         | 782           | 1,104          | 400           | 0          | 43,256           |
| 1996         | 4                | 0                  | 1                | 1,983         | 10,031           | 4,976          | 0                                  | 391            | 432           | 1,015         | 3,404          | 1,160         | 0          | 23,397           |
| 1997         | 0                | 1,780              | 2,152            | 3,107         | 337,357          | 165,774        | 1,753                              | 34,604         | 12,296        | 15,910        | 21,028         | 0             | 0          | 595,761          |
| 1998         | 0                | 0                  | 0                | 20,966        | 235,693          | 106,251        | 2,354                              | 697            | 848           | 1,836         | 6,426          | 0             | 0          | 375,071          |
| 1999         | 0                | 0                  | 0                | 0             | 63,196           | 26,235         | 0                                  | 3,394          | 4,136         | 8,959         | 31,350         | 7,740         | 0          | 145,010          |
| 2000         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 2001         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 2002         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 2003         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 2004         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| 2005         | 0                | 0                  | 0                | 0             | 0                | 0              | 0                                  | 0              | 0             | 0             | 0              | 0             | 0          | 0                |
| <b>Total</b> | <b>4,290</b>     | <b>3,549</b>       | <b>5,707</b>     | <b>38,457</b> | <b>1,041,323</b> | <b>637,838</b> | <b>70,909</b>                      | <b>78,719</b>  | <b>43,445</b> | <b>67,625</b> | <b>172,056</b> | <b>20,480</b> | <b>132</b> | <b>2,184,530</b> |

**Table 9. Extra Peaking Charges for Additional Power, by Contractor (Dollars)**

| Year         | Napa         | Solano       | Alameda<br>Zone 7 | Alameda<br>County | Santa<br>Clara | Dudley<br>Ridge | Empire       | Kern<br>County   | Kings        | Oak<br>Flat  | Tulare         | AVEK           | Castaic<br>Lake | Coachella     | Desert        | Littlerock   | Palmdale      | San Gabriel   | Total            |
|--------------|--------------|--------------|-------------------|-------------------|----------------|-----------------|--------------|------------------|--------------|--------------|----------------|----------------|-----------------|---------------|---------------|--------------|---------------|---------------|------------------|
| 1972         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 35,269           | 0            | 0            | 10             | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 35,279           |
| 1973         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 6,016            | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 6,016            |
| 1974         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 7,140            | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 7,140            |
| 1975         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 6,891            | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 6,891            |
| 1976         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 1,981            | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 1,981            |
| 1977         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            |                  | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 1978         | 0            | 0            | 0                 | 0                 | 0              | 2,035           | 0            | 44,484           | 42           | 0            | 0              | 2,264          | 0               | 0             | 0             | 0            | 0             | 0             | 48,825           |
| 1979         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 2,821            | 0            | 0            | 0              | 0              | 485             | 0             | 0             | 0            | 0             | 0             | 3,306            |
| 1980         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 1981         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 11,951           | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 175          | 0             | 0             | 12,126           |
| 1982         | 0            | 0            | 0                 | 0                 | 0              | 2,173           | 0            | 80,945           | 0            | 0            | 0              | 4,671          | 1,128           | 0             | 0             | 0            | 0             | 422           | 89,339           |
| 1983         | 0            | 0            | 0                 | 0                 | 48             | 9,511           | 0            | 0                | 1,365        | 0            | 0              | 0              | 391             | 0             | 0             | 0            | 0             | 0             | 11,315           |
| 1984         | 0            | 0            | 0                 | 0                 | 2,874          | 0               | 0            | 144,021          | 281          | 809          | 0              | 0              | 2,906           | 0             | 0             | 0            | 0             | 0             | 150,891          |
| 1985         | 0            | 0            | 0                 | 2,029             | 0              | 0               | 64           | 25,664           | 0            | 98           | 0              | 48,767         | 256             | 0             | 0             | 0            | 0             | 0             | 76,878           |
| 1986         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 13           | 2,194          | 4,614          | 0               | 0             | 0             | 0            | 0             | 0             | 6,821            |
| 1987         | 0            | 0            | 229               | 0                 | 599            | 313             | 84           | 24,141           | 0            | 95           | 0              | 18,207         | 545             | 0             | 0             | 812          | 0             | 0             | 45,025           |
| 1988         | 892          | 73           | 665               | 561               | 0              | 1,853           | 1,404        | 58,905           | 0            | 72           | 2,368          | 44,526         | 627             | 0             | 0             | 0            | 0             | 0             | 111,946          |
| 1989         | 3,478        | 1,062        | 96                | 0                 | 0              | 13              | 403          | 55,085           | 0            | 239          | 8,278          | 0              | 1,043           | 0             | 0             | 1,035        | 5,489         | 0             | 76,221           |
| 1990         | 63           | 0            | 470               | 0                 | 0              | 0               | 0            | 28,587           | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 81           | 1,025         | 0             | 30,226           |
| 1991         | 1,184        | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 280          | 0             | 0             | 1,464            |
| 1992         | 271          | 257          | 0                 | 0                 | 0              | 0               | 49           | 10,109           | 221          | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 10,907           |
| 1993         | 0            | 1,570        | 6,122             | 0                 | 0              | 0               | 3,757        | 97,812           | 504          | 0            | 74,577         | 0              | 0               | 24,983        | 41,156        | 0            | 4,856         | 0             | 255,337          |
| 1994         | 0            | 759          | 896               | 0                 | 0              | 0               | 7            | 9,933            | 0            | 0            | 0              | 0              | 2,450           | 0             | 0             | 56           | 0             | 0             | 14,101           |
| 1995         | 0            | 0            | 2,353             | 0                 | 0              | 10,197          | 0            | 28,085           | 310          | 0            | 0              | 0              | 27              | 0             | 0             | 0            | 2,284         | 0             | 43,256           |
| 1996         | 5            | 0            | 81                | 2,612             | 0              | 334             | 205          | 4,552            | 969          | 0            | 7,809          | 0              | 0               | 0             | 0             | 0            | 3,598         | 3,232         | 23,397           |
| 1997         | 0            | 3,932        | 3,999             | 0                 | 0              | 6,190           | 0            | 546,733          | 0            | 40           | 0              | 0              | 0               | 0             | 0             | 0            | 34,867        | 0             | 595,761          |
| 1998         | 0            | 0            | 19,666            | 8,442             | 0              | 22,631          | 1            | 312,626          | 0            | 651          | 0              | 0              | 0               | 0             | 0             | 0            | 11,054        | 0             | 375,071          |
| 1999         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 76,425           | 0            | 0            | 6,922          | 0              | 0               | 0             | 0             | 0            | 11,576        | 50,087        | 145,010          |
| 2000         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 2001         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 2002         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 2003         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 2004         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| 2005         | 0            | 0            | 0                 | 0                 | 0              | 0               | 0            | 0                | 0            | 0            | 0              | 0              | 0               | 0             | 0             | 0            | 0             | 0             | 0                |
| <b>Total</b> | <b>5,893</b> | <b>7,653</b> | <b>34,577</b>     | <b>13,644</b>     | <b>3,521</b>   | <b>55,250</b>   | <b>5,974</b> | <b>1,620,176</b> | <b>3,692</b> | <b>2,017</b> | <b>102,158</b> | <b>123,049</b> | <b>9,858</b>    | <b>24,983</b> | <b>41,156</b> | <b>2,439</b> | <b>74,749</b> | <b>53,741</b> | <b>2,184,530</b> |



## Equivalent Total Water Charges

Table B-24 presents the Transportation Charge and Delta Water Charge in terms of the equivalent unit charge for each acre-foot of allocated water now projected for delivery to the respective contractors.

These equivalent charges would provide the same principal sum at the end of the project repayment period as annual payments to be made as part of the Delta Water Charge and Transportation Charge, plus interest at the Project Interest Rate, if applied to each acre-foot of allocated water delivered to date; all surplus water delivered prior to May 1, 1973; all interruptible water deliveries in 1994 and after; and all allocated water now projected to be delivered during the remainder of the project repayment period (Table B-5B).

The equivalent unit Delta Water Charges included in Table B-24 are greater than those in Table B-20A because current projections of allocated water service are less for most contractors than the amounts shown in Table A.

## Equivalent Water Costs by Reach

Table B-25 presents a summary of the equivalent unit Transportation cost of conveying allocated water through respective aqueduct reaches of the Project Transportation Facilities.

Those unit costs provide the basis of charges assessed for extra service (such as for delivery of allocations down-aqueduct from a contractor's turnout) and for wheeling service to entities other than the long-term water supply contractors.

The cumulative unit conveyance costs indicated for reaches in Table B-25 do not necessarily equal the equivalent unit Transportation Charges to contractors served from such reaches. The unit charges in Table B-24 account for the rate of water demand buildup and cost allocation factors of the individual contractors; however, the unit costs included in Table B-25 reflect the effect of melding the respective

buildups and allocation criteria of all contractors whose allocations are conveyed through a given reach. Table B-25 also includes surplus water delivered prior to May 1, 1973, and interruptible water deliveries in 1994 and after.

## East Branch Enlargement Facility Charges

Table B-26 reflects DWR's projection of annual capital costs of the East Branch Enlargement Facilities for each aqueduct reach. Those projections will be redetermined in future bulletins to include:

- a reallocation of costs of constructing the present east branch facilities between Alamo Power Plant and Silverwood Lake;
- a reallocation of costs of Silverwood Lake to reflect additional use as a result of East Branch Enlargement operation;
- reallocation of costs of San Bernardino Tunnel to reflect redistribution of flow capacities necessary for the East Branch Enlargement facilities; and
- actual construction costs of the enlargement.

These costs will be recovered with interest from the seven Southern California water contractors participating in the enlargement, according to their amended water supply contracts (see Table 10).

Table B-27 lists the projected minimum OMP&R costs for each reach of the enlargement to be repaid by the seven contractors participating in the East Branch Enlargement. Currently, this table includes only minimum OMP&R costs attributable to the East Branch Enlargement. According to Article 49(e)(1), the contractors participating in the East Branch Enlargement will also share in the remaining minimum OMP&R costs of the affected reaches according to a formula developed by DWR in consultation with the affected contractors.

Table B-28 shows each participating contractor's share of the estimated capital costs of the East Branch Enlargement shown in Table B-26.

**Table 10. Determination of Factors for Distributing Capital and Minimum OMP&R Costs of East Branch Enlargement Facilities among Participating Contractors**

| Reach Number | Description                                                                                |  |  |  |  |  |  |  |
|--------------|--------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| 18A          | Junction, West Branch, California Aqueduct, through Alamo Power Plant                      |  |  |  |  |  |  |  |
| 19           | Alamo Power Plant to Fairmont                                                              |  |  |  |  |  |  |  |
| 20A          | Fairmont through 70th Street West                                                          |  |  |  |  |  |  |  |
| 20B          | 70th Street West to Palmdale                                                               |  |  |  |  |  |  |  |
| 21           | Palmdale to Littlerock Creek                                                               |  |  |  |  |  |  |  |
| 22A          | Littlerock Creek to Pearblossom Pumping Plant                                              |  |  |  |  |  |  |  |
| 22B          | Pearblossom Pumping Plant to West Fork Mojave River                                        |  |  |  |  |  |  |  |
| 23B          | West Fork Mojave River to Silverwood Lake (excluding Mojave Siphon Power Plant facilities) |  |  |  |  |  |  |  |
| 23C          | Mojave Siphon Power Plant facilities                                                       |  |  |  |  |  |  |  |
| 24           | Cedar Springs Dam and Silverwood Lake                                                      |  |  |  |  |  |  |  |
| 25           | Silverwood Lake to South Portal, San Bernardino Tunnel                                     |  |  |  |  |  |  |  |
| 26A          | South Portal, San Bernardino Tunnel through Devil Canyon Power Plant                       |  |  |  |  |  |  |  |
| 26B          | Devil Canyon Power Plant Bypass                                                            |  |  |  |  |  |  |  |

| Share of Enlargement Capacity (cfs) |                                        |                                 |                     |                     |                         |                                                |                                                    |       |
|-------------------------------------|----------------------------------------|---------------------------------|---------------------|---------------------|-------------------------|------------------------------------------------|----------------------------------------------------|-------|
| Reach Number                        | Antelope Valley-East Kern Water Agency | Coachella Valley Water District | Desert Water Agency | Mojave Water Agency | Palmdale Water District | San Bernardino Valley Municipal Water District | Metropolitan Water District of Southern California | Total |
| 18A                                 |                                        | 151                             | 13                  | 136                 | 6                       |                                                | 1,200                                              | 1,506 |
| 19                                  |                                        | 151                             | 13                  | 136                 | 6                       |                                                | 1,200                                              | 1,506 |
| 20A                                 | 35                                     | 151                             | 13                  | 136                 | 6                       |                                                | 1,200                                              | 1,541 |
| 20B                                 | 35                                     | 151                             | 13                  | 136                 | 6                       |                                                | 1,200                                              | 1,541 |
| 21                                  | 35                                     | 151                             | 13                  | 136                 |                         |                                                | 1,200                                              | 1,535 |
| 22A                                 | 35                                     | 151                             | 13                  | 136                 |                         |                                                | 1,200                                              | 1,535 |
| 22B                                 |                                        | 151                             | 13                  | 136                 |                         |                                                | 1,200                                              | 1,500 |
| 23B                                 |                                        | 184                             | 67                  | 212                 |                         |                                                | 1,200                                              | 1,663 |
| 23C                                 |                                        | 184                             | 67                  |                     |                         |                                                | 1,200                                              | 1,451 |
| 24                                  |                                        | 190                             | 78                  |                     |                         |                                                | 1,200                                              | 1,468 |
| 25                                  |                                        | 193                             | 83                  |                     |                         | 63                                             | 1,200                                              | 1,539 |
| 26A                                 |                                        | 193                             | 83                  |                     |                         | 63                                             | 1,200                                              | 1,539 |
| 26B                                 |                                        |                                 |                     |                     |                         |                                                | 300                                                | 300   |

| Factors for Distributing Capital and Minimum OMP&R Costs of East Branch Enlargement Facilities (flow ratios) |                                        |                                 |                     |                     |                         |                                                |                                                    |            |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------|---------------------|---------------------|-------------------------|------------------------------------------------|----------------------------------------------------|------------|
| Reach Number                                                                                                 | Antelope Valley-East Kern Water Agency | Coachella Valley Water District | Desert Water Agency | Mojave Water Agency | Palmdale Water District | San Bernardino Valley Municipal Water District | Metropolitan Water District of Southern California | Total      |
| 18A                                                                                                          | 0.00000000                             | 0.10026560                      | 0.00863214          | 0.09030544          | 0.00398406              | 0.00000000                                     | 0.79681276                                         | 1.00000000 |
| 19                                                                                                           | 0.00000000                             | 0.10026560                      | 0.00863214          | 0.09030544          | 0.00398406              | 0.00000000                                     | 0.79681276                                         | 1.00000000 |
| 20A                                                                                                          | 0.02271252                             | 0.09798832                      | 0.00843608          | 0.08825438          | 0.00389358              | 0.00000000                                     | 0.77871512                                         | 1.00000000 |
| 20B                                                                                                          | 0.02271252                             | 0.09798832                      | 0.00843608          | 0.08825438          | 0.00389358              | 0.00000000                                     | 0.77871512                                         | 1.00000000 |
| 21                                                                                                           | 0.02280130                             | 0.09837134                      | 0.00846906          | 0.08859935          | 0.00000000              | 0.00000000                                     | 0.78175895                                         | 1.00000000 |
| 22A                                                                                                          | 0.02280130                             | 0.09837134                      | 0.00846906          | 0.08859935          | 0.00000000              | 0.00000000                                     | 0.78175895                                         | 1.00000000 |
| 22B                                                                                                          | 0.00000000                             | 0.10066667                      | 0.00866667          | 0.09066667          | 0.00000000              | 0.00000000                                     | 0.79999999                                         | 1.00000000 |
| 23B                                                                                                          | 0.00000000                             | 0.11064342                      | 0.04028863          | 0.12748046          | 0.00000000              | 0.00000000                                     | 0.72158749                                         | 1.00000000 |
| 23C                                                                                                          | 0.00000000                             | 0.12680910                      | 0.04617505          | 0.00000000          | 0.00000000              | 0.00000000                                     | 0.82701585                                         | 1.00000000 |
| 24                                                                                                           | 0.00000000                             | 0.12942779                      | 0.05313351          | 0.00000000          | 0.00000000              | 0.00000000                                     | 0.81743870                                         | 1.00000000 |
| 25                                                                                                           | 0.00000000                             | 0.12540611                      | 0.05393112          | 0.00000000          | 0.00000000              | 0.04093567                                     | 0.77972710                                         | 1.00000000 |
| 26A                                                                                                          | 0.00000000                             | 0.12540611                      | 0.05393112          | 0.00000000          | 0.00000000              | 0.04093567                                     | 0.77972710                                         | 1.00000000 |
| 26B                                                                                                          | 0.00000000                             | 0.00000000                      | 0.00000000          | 0.00000000          | 0.00000000              | 0.00000000                                     | 1.00000000                                         | 1.00000000 |

*Table B-29* shows the amounts of the annual capital cost components of the East Branch Enlargement Transportation Charge for each participating contractor. This component consists of each contractor's allocated share of debt service on bonds sold to finance the enlargement.

*Table B-30* shows the minimum OMP&R components of the East Branch Enlargement Transportation Charge for each participating contractor for each year of the project repayment period. The amounts shown in *Table B-30* will recover the minimum OMP&R costs shown in *Table B-27*.

*Table B-31* shows the annual East Branch Enlargement Transportation charges for each participating contractor (the sum of the corresponding amounts included in *Tables B-29* and *B-30*).

### **Short-Term Agreements**

The long-term water supply contractors and DWR have executed short-term agreements that

affects the contractors' charges. A 5-year agreement was executed in late 1997 between DWR and 16 Municipal and Industrial contractors, who agreed to pay their allocated shares of Municipal Water Quality Investigations costs. In 2002 and 2006, additional amendments were executed extending the program. The MWQI charges under this agreement are included in the Transportation minimum OMP&R components shown in *Table B-16A*.

Nine contractors executed a short-term agreement (1997 and 1998) to participate in the feasibility study for the American Basin conjunctive-use program. Costs of the feasibility study are included in *Table B-16A*.

Contractors have agreed to participate in the Delta Vision Improvement programs, which will initially incur costs for the next two to four years. Associated cost will be charged as part of Conservation.

**Tables B-1 through B-6 Follow**

**TABLE B-1. Factors for Distributing Reach Capital Costs Among Contractors**

Sheet 1 of 2

| Reach No.             | Reach Description                                  | NORTH BAY AREA     |                  | SOUTH BAY AREA                |                               |                                   |                   | Total      |
|-----------------------|----------------------------------------------------|--------------------|------------------|-------------------------------|-------------------------------|-----------------------------------|-------------------|------------|
|                       |                                                    | Napa County FC&WCD | Solano County WA | Alameda County FC&WCD, Zone 7 | Alameda County Water District | Santa Clara Valley Water District | Future Contractor |            |
| 1<br>2<br>3A<br>3B    | <b>NORTH BAY AQUEDUCT</b>                          |                    |                  |                               |                               |                                   |                   |            |
|                       | Barker Slough thru Fairfield/Vacaville Turnout     | 0.29667896         | 0.70332104       |                               |                               |                                   |                   | 1.00000000 |
|                       | Fairfield/Vacaville Turnout to Cordelia Forebay    | 0.38414552         | 0.61585448       |                               |                               |                                   |                   | 1.00000000 |
|                       | Cordelia Forebay thru Benicia and Vallejo Turnouts |                    | 1.00000000       |                               |                               |                                   |                   | 1.00000000 |
| 1<br>2<br>4<br>5<br>6 | <b>SOUTH BAY AQUEDUCT</b>                          |                    |                  |                               |                               |                                   |                   |            |
|                       | Bethany Reservoir thru Altamont Turnout            |                    |                  | 0.22599612                    | 0.20663021                    | 0.49237700                        | 0.07499667        | 1.00000000 |
|                       | Altamont Turnout thru Patterson Reservoir          |                    |                  | 0.22599658                    | 0.20663059                    | 0.49237783                        | 0.07499500        | 1.00000000 |
|                       | Patterson Reservoir to Del Valle Junction          |                    |                  | 0.19504795                    | 0.21450017                    | 0.51113249                        | 0.07931939        | 1.00000000 |
| 7<br>8<br>9           | Del Valle Junction thru Lake Del Valle             |                    |                  | 0.14436367                    | 0.12972254                    | 0.33715573                        | 0.38875806        | 1.00000000 |
|                       | Del Valle Junction thru South Livermore Turnout    |                    |                  | 0.14599918                    | 0.21144710                    | 0.50574745                        | 0.13680627        | 1.00000000 |
|                       | South Livermore Turnout thru Vallecitos Turnout    |                    |                  |                               | 0.25176680                    | 0.60218448                        | 0.14604872        | 1.00000000 |
|                       | Vallecitos Turnout thru Alameda-Bayside Turnout    |                    |                  |                               | 0.27934645                    | 0.72065355                        |                   | 1.00000000 |
| 1                     | <b>CALIFORNIA AQUEDUCT</b>                         |                    |                  |                               |                               |                                   |                   |            |
|                       | Delta thru Bethany Reservoir                       |                    |                  | 0.00954737                    | 0.00872917                    | 0.02080118                        | 0.00342507        | N/A        |

| Reach No.                             | Reach Description                                          | CENTRAL COASTAL AREA          |                             | SOUTHERN CALIFORNIA AREA               |                           |                                 |                                       |                     |
|---------------------------------------|------------------------------------------------------------|-------------------------------|-----------------------------|----------------------------------------|---------------------------|---------------------------------|---------------------------------------|---------------------|
|                                       |                                                            | San Luis Obispo County FC&WCD | Santa Barbara County FC&WCD | Antelope Valley-East Kern Water Agency | Castaic Lake Water Agency | Coachella Valley Water District | Crestline-Lake Arrowhead Water Agency | Desert Water Agency |
| 1<br>2A<br>2B<br>3<br>4               | <b>CALIFORNIA AQUEDUCT</b>                                 |                               |                             |                                        |                           |                                 |                                       |                     |
|                                       | Delta thru Bethany Reservoir                               | 0.00533010                    | 0.00983337                  | 0.02939084                             | 0.01285827                | 0.00528315                      | 0.00133612                            | 0.00871300          |
|                                       | Bethany Reservoir to Orestimba Creek                       | 0.00557213                    | 0.01027988                  | 0.03072531                             | 0.01343201                | 0.00552068                      | 0.00139620                            | 0.00910474          |
|                                       | Orestimba Creek to O'Neill Forebay                         | 0.00557824                    | 0.01029119                  | 0.03075915                             | 0.01345351                | 0.00552831                      | 0.00139814                            | 0.00911733          |
| 5<br>6<br>7<br>8C<br>8D               | O'Neill Forebay to Dos Amigos Pumping Plant                | 0.00557719                    | 0.01028923                  | 0.03075332                             | 0.01345294                | 0.00552772                      | 0.00139798                            | 0.00911637          |
|                                       | Dos Amigos Pumping Plant to Panoche Creek                  | 0.00557607                    | 0.01028717                  | 0.03074719                             | 0.01345233                | 0.00552710                      | 0.00139784                            | 0.00911536          |
|                                       | Panoche Creek to Five Points                               | 0.00557467                    | 0.01028462                  | 0.03073954                             | 0.01345157                | 0.00552633                      | 0.00139763                            | 0.00911409          |
|                                       | Five Points to Arroyo Pasaiero                             | 0.00557257                    | 0.01028074                  | 0.03072799                             | 0.01345042                | 0.00552517                      | 0.00139733                            | 0.00911216          |
| 9<br>10A<br>11B<br>12D<br>12E         | Arroyo Pasaiero to Kettleman City                          | 0.00557189                    | 0.01027949                  | 0.03072428                             | 0.01345006                | 0.00552480                      | 0.00139723                            | 0.00911154          |
|                                       | Kettleman City thru Milham Avenue                          | 0.00557103                    | 0.01027792                  | 0.03071961                             | 0.01344960                | 0.00552432                      | 0.00139712                            | 0.00911076          |
|                                       | Milham Avenue thru Avenal Gap                              | 0.00568611                    | 0.01049020                  | 0.03135418                             | 0.01373353                | 0.00563986                      | 0.00142632                            | 0.00930130          |
|                                       | Avenal Gap thru Twisselman Road                            |                               |                             | 0.03426625                             | 0.01356094                | 0.00616886                      | 0.00156011                            | 0.01017373          |
| 13B<br>14A<br>14B<br>14C<br>15A       | Twisselman Road thru Lost Hills                            |                               |                             | 0.03481391                             | 0.01377767                | 0.00626946                      | 0.00158556                            | 0.01033963          |
|                                       | Lost Hills to 7th Standard Road                            |                               |                             | 0.03835043                             | 0.01517717                | 0.00691699                      | 0.00174933                            | 0.01140749          |
|                                       | 7th Standard Road thru Elk Hills Road                      |                               |                             | 0.04031661                             | 0.01595523                | 0.00727790                      | 0.00184059                            | 0.01200265          |
|                                       | Elk Hills Road thru Tupman Road                            |                               |                             | 0.04037074                             | 0.01597665                | 0.00728878                      | 0.00184332                            | 0.01202059          |
| 16A<br>17E<br>17F<br>18A<br>19        | Tupman Road to Buena Vista Pumping Plant                   |                               |                             | 0.04379882                             | 0.01733322                | 0.00791595                      | 0.00200194                            | 0.01305492          |
|                                       | Buena Vista Pumping Plant thru Santiago Creek              |                               |                             | 0.04599268                             | 0.01820137                | 0.00831952                      | 0.00210399                            | 0.01372049          |
|                                       | Santiago Creek thru Old River Road                         |                               |                             | 0.04682530                             | 0.01853084                | 0.00847388                      | 0.00214303                            | 0.01397505          |
|                                       | Old River Road to Wheeler Ridge Pumping Plant              |                               |                             | 0.04825217                             | 0.01909545                | 0.00873768                      | 0.00220973                            | 0.01441013          |
| 20A<br>20B<br>21<br>22A               | Wheeler Ridge Pumping Plant to Chrisman Pumping Plant      |                               |                             | 0.04905609                             | 0.01941356                | 0.00888679                      | 0.00224744                            | 0.01465600          |
|                                       | Chrisman Pumping Plant to Edmonston Pumping Plant          |                               |                             | 0.05089794                             | 0.02014241                | 0.00922722                      | 0.00233351                            | 0.01521742          |
|                                       | Edmonston Pumping Plant to Porter Tunnel                   |                               |                             | 0.05329388                             | 0.02109050                | 0.00967107                      | 0.00244575                            | 0.01594937          |
|                                       | Porter Tunnel to Junction, West Branch, Calif. Aqueduct    |                               |                             | 0.05340725                             | 0.02113537                | 0.00969176                      | 0.00245098                            | 0.01598349          |
| 28G<br>28H<br>28J                     | Junction, West Branch, Calif. Aqueduct thru Alamo Pwp.     |                               |                             | 0.13238112                             | 0.02399391                | 0.00606795                      | 0.003957043                           | 0.03957043          |
|                                       | Alamo Powerplant to Fairmont                               |                               |                             | 0.13237766                             |                           | 0.02399451                      | 0.00606811                            | 0.03957141          |
|                                       | Buttes Junction thru Buttes Reservoir                      |                               |                             | 1.00000000                             |                           |                                 |                                       |                     |
|                                       | Fairmont thru 70th Street West                             |                               |                             | 0.06847931                             |                           | 0.02576425                      | 0.00651573                            | 0.04249001          |
| 29A<br>29F<br>29G<br>29H<br>29J<br>30 | 70th Street West to Palmdale                               |                               |                             | 0.02276024                             |                           | 0.02702917                      | 0.00683555                            | 0.04457607          |
|                                       | Palmdale to Littlerock Creek                               |                               |                             | 0.02318952                             |                           | 0.02754716                      | 0.00696651                            | 0.04543034          |
|                                       | Littlerock Creek to Pearblossom Pumping Plant              |                               |                             | 0.01181870                             |                           | 0.02794143                      | 0.00706621                            | 0.04608043          |
|                                       | Pearblossom Pumping Plant to West Fork Mojave River        |                               |                             |                                        |                           | 0.02827552                      | 0.00715074                            | 0.04663153          |
| 31A<br>33A<br>33B<br>34<br>35         | West Fork Mojave River to Silverwood Lake                  |                               |                             |                                        |                           | 0.00324449                      | 0.00818122                            | 0.00535117          |
|                                       | Cedar Springs Dam and Silverwood Lake                      |                               |                             |                                        |                           | 0.01024605                      | 0.01251569                            | 0.01690478          |
|                                       | Silverwood Lake to South Portal San Bernardino Tunnel      |                               |                             |                                        |                           |                                 |                                       |                     |
|                                       | South Portal, San Bernardino Tunnel thru Devil Canyon Pwp. |                               |                             |                                        |                           |                                 |                                       |                     |
| 29A<br>29F<br>29G<br>29H<br>29J<br>30 | Devil Canyon Powerplant to Barton Road                     |                               |                             |                                        |                           |                                 |                                       |                     |
|                                       | Barton Road to Lake Perris                                 |                               |                             |                                        |                           |                                 |                                       |                     |
|                                       | Perris Dam and Lake Perris                                 |                               |                             |                                        |                           |                                 |                                       |                     |
|                                       | Junction, West Branch, Calif. Aqueduct thru Oso P. P.      |                               |                             |                                        |                           | 0.03544337                      |                                       |                     |
| 31A<br>33A<br>33B<br>34<br>35         | Oso Pumping Plant thru Quail Embankment                    |                               |                             |                                        |                           | 0.03544339                      |                                       |                     |
|                                       | Quail Embankment thru Warne Powerplant                     |                               |                             |                                        |                           | 0.03544339                      |                                       |                     |
|                                       | Pyramid Dam and Lake                                       |                               |                             |                                        |                           | 0.02817144                      |                                       |                     |
|                                       | Pyramid Lake thru Castaic Powerplant                       |                               |                             |                                        |                           | 0.03544338                      |                                       |                     |
| 31A<br>33A<br>33B<br>34<br>35         | Castaic Dam and Lake                                       |                               |                             |                                        |                           | 0.02927284                      |                                       |                     |
|                                       | Avenal Gap to Devil's Den Pumping Plant                    | 0.10560301                    | 0.19482503                  |                                        | 0.07364766                |                                 |                                       |                     |
|                                       | Devil's Den Pumping Plant through Tank 1                   | 0.10101221                    | 0.89898779                  |                                        |                           |                                 |                                       |                     |
|                                       | Tank 1 through Chorro Valley Turnout                       | 0.09912818                    | 0.90087182                  |                                        |                           |                                 |                                       |                     |
| 33B<br>34<br>35                       | Chorro Valley Turnout through Lopez Turnout                | 0.05479573                    | 0.94520427                  |                                        |                           |                                 |                                       |                     |
|                                       | Lopez Turnout through Guadalupe Turnout                    |                               | 1.00000000                  |                                        |                           |                                 |                                       |                     |

Note: Proportionate use factors **do not** reflect permanent water transfer as a result of the Monterey Amendment.

**TABLE B-1. Factors for Distributing Reach Capital Costs Among Contractors**

Sheet 2 of 2

| Reach<br>No. | SAN JOAQUIN VALLEY AREA           |                                               |                                               |                                |              |                       |                               |                                                   |
|--------------|-----------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|--------------|-----------------------|-------------------------------|---------------------------------------------------|
|              | Dudley Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |              | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District |
|              |                                   |                                               |                                               | Municipal<br>and<br>Industrial | Agricultural |                       |                               |                                                   |
|              | CALIFORNIA AQUEDUCT               |                                               |                                               |                                |              |                       |                               |                                                   |
| 1            | 0.01707770                        | 0.00088678                                    | 0.00254693                                    | 0.02741768                     | 0.30629913   | 0.00090695            | 0.00167121                    | 0.03504975                                        |
| 2A           | 0.01781031                        | 0.00092482                                    | 0.00266258                                    | 0.02864263                     | 0.31945188   | 0.00094747            | 0.00174288                    | 0.03655331                                        |
| 2B           | 0.01785838                        | 0.00092731                                    | 0.00266550                                    | 0.02868743                     | 0.32030556   | 0.00094896            |                               | 0.03665201                                        |
| 3            | 0.01786337                        | 0.00092757                                    | 0.00266499                                    | 0.02868589                     | 0.32039254   | 0.00094892            |                               | 0.03666225                                        |
| 4            | 0.01786863                        | 0.00092785                                    | 0.00266446                                    | 0.02868428                     | 0.32048398   | 0.00094886            |                               | 0.03667303                                        |
| 5            | 0.01787517                        | 0.00092819                                    | 0.00266380                                    | 0.02868227                     | 0.32059816   | 0.00094879            |                               | 0.03668649                                        |
| 6            | 0.01788508                        | 0.00092870                                    | 0.00266279                                    | 0.02867923                     | 0.32077093   | 0.00094868            |                               | 0.03670685                                        |
| 7            | 0.01788826                        | 0.00092887                                    | 0.00266246                                    | 0.02867825                     | 0.32082633   | 0.00094864            |                               | 0.03671338                                        |
| 8C           | 0.01789228                        | 0.00092909                                    | 0.00266205                                    | 0.02867702                     | 0.32089625   | 0.00094859            |                               | 0.03672162                                        |
| 8D           | 0.01828779                        |                                               | 0.00271703                                    | 0.02928147                     | 0.32798200   |                       |                               | 0.01820857                                        |
| 9            |                                   |                                               |                                               | 0.03204523                     | 0.32739538   |                       |                               |                                                   |
| 10A          |                                   |                                               |                                               | 0.03257442                     | 0.31658608   |                       |                               |                                                   |
| 11B          |                                   |                                               |                                               | 0.03597398                     | 0.24684668   |                       |                               |                                                   |
| 12D          |                                   |                                               |                                               | 0.03787171                     | 0.20804762   |                       |                               |                                                   |
| 12E          |                                   |                                               |                                               | 0.03793198                     | 0.20695175   |                       |                               |                                                   |
| 13B          |                                   |                                               |                                               | 0.01458796                     | 0.16600071   |                       |                               |                                                   |
| 14A          |                                   |                                               |                                               | 0.00620338                     | 0.13319181   |                       |                               |                                                   |
| 14B          |                                   |                                               |                                               | 0.00632023                     | 0.11741558   |                       |                               |                                                   |
| 14C          |                                   |                                               |                                               | 0.00651962                     | 0.09039633   |                       |                               |                                                   |
| 15A          |                                   |                                               |                                               | 0.00663252                     | 0.07516317   |                       |                               |                                                   |
| 16A          |                                   |                                               |                                               | 0.00688973                     | 0.04028829   |                       |                               |                                                   |
| 17E          |                                   |                                               |                                               | 0.00212516                     |              |                       |                               |                                                   |
| 31A          |                                   |                                               | 0.05046240                                    |                                | 0.57546190   |                       |                               |                                                   |

| SOUTHERN CALIFORNIA AREA (continued) |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | Total      |
|--------------------------------------|--------------------------------------|---------------------|-------------------------|-----------------------------------------|---------------------------------------------|-------------------------------|--------------------------------------------------------|---------------------------------------|------------|
| Reach No.                            | Littlerock Creek Irrigation District | Mojave Water Agency | Palmdale Water District | San Bernardino Municipal Water District | San Gabriel Valley Municipal Water District | San Geronio Pass Water Agency | The Metropolitan Water District of Southern California | Ventura County Flood Control District |            |
| 1                                    | 0.00049180                           | 0.01101147          | 0.00369131              | 0.02362857                              | 0.00650354                                  | 0.00398392                    | 0.43929350                                             | 0.00429212                            | 1.00000000 |
| 2A                                   | 0.00051413                           | 0.01151136          | 0.00385891              | 0.02469101                              | 0.00679699                                  | 0.00416304                    | 0.45921072                                             | 0.00448701                            | 1.00000000 |
| 2B                                   | 0.00051469                           | 0.01152409          | 0.00386317              | 0.02472511                              | 0.00680570                                  | 0.00416880                    | 0.45973548                                             | 0.00449194                            | 1.00000000 |
| 3                                    | 0.00051461                           | 0.01152193          | 0.00386244              | 0.02472246                              | 0.00680478                                  | 0.00416835                    | 0.45965407                                             | 0.00449108                            | 1.00000000 |
| 4                                    | 0.00051451                           | 0.01151965          | 0.00386167              | 0.02471968                              | 0.00680380                                  | 0.00416787                    | 0.45956848                                             | 0.00449019                            | 1.00000000 |
| 5                                    | 0.00051440                           | 0.01151681          | 0.00386070              | 0.02471620                              | 0.00680259                                  | 0.00416730                    | 0.45946161                                             | 0.00448907                            | 1.00000000 |
| 6                                    | 0.00051419                           | 0.01151251          | 0.00385926              | 0.02471095                              | 0.00680076                                  | 0.00416640                    | 0.45929991                                             | 0.00448738                            | 1.00000000 |
| 7                                    | 0.00051413                           | 0.01151113          | 0.00385879              | 0.02470927                              | 0.00680016                                  | 0.00416612                    | 0.45924807                                             | 0.00448685                            | 1.00000000 |
| 8C                                   | 0.00051405                           | 0.01150938          | 0.00385821              | 0.02470716                              | 0.00679941                                  | 0.00416576                    | 0.45918261                                             | 0.00448616                            | 1.00000000 |
| 8D                                   | 0.00052466                           | 0.01174718          | 0.00393793              | 0.02522383                              | 0.00694100                                  | 0.00425288                    | 0.46868533                                             | 0.00457883                            | 1.00000000 |
| 9                                    | 0.00057339                           | 0.01283841          | 0.00430367              | 0.02758959                              | 0.00758975                                  | 0.00465175                    | 0.51227887                                             | 0.00500407                            | 1.00000000 |
| 10A                                  | 0.00058254                           | 0.01304366          | 0.00437246              | 0.02803943                              | 0.00771262                                  | 0.00472760                    | 0.52049091                                             | 0.00508405                            | 1.00000000 |
| 11B                                  | 0.00064171                           | 0.01436906          | 0.00481665              | 0.03093503                              | 0.00850448                                  | 0.00521581                    | 0.57349473                                             | 0.00560046                            | 1.00000000 |
| 12D                                  | 0.00067463                           | 0.01510596          | 0.00506361              | 0.03254889                              | 0.00894541                                  | 0.00548790                    | 0.60297374                                             | 0.00588755                            | 1.00000000 |
| 12E                                  | 0.00067553                           | 0.01512626          | 0.00507040              | 0.03259749                              | 0.00895830                                  | 0.00549608                    | 0.60379667                                             | 0.00589546                            | 1.00000000 |
| 13B                                  | 0.00073290                           | 0.01641098          | 0.00550099              | 0.03540212                              | 0.00972547                                  | 0.00596896                    | 0.65516902                                             | 0.00639604                            | 1.00000000 |
| 14A                                  | 0.00076961                           | 0.01723325          | 0.00577656              | 0.03720681                              | 0.01021819                                  | 0.00627322                    | 0.68807273                                             | 0.00671639                            | 1.00000000 |
| 14B                                  | 0.00078354                           | 0.01754538          | 0.00588113              | 0.03789703                              | 0.01040613                                  | 0.00638960                    | 0.70057530                                             | 0.00683798                            | 1.00000000 |
| 14C                                  | 0.00080743                           | 0.01808019          | 0.00606036              | 0.03907670                              | 0.01072763                                  | 0.00658850                    | 0.72199174                                             | 0.00704634                            | 1.00000000 |
| 15A                                  | 0.00082089                           | 0.01838154          | 0.00616135              | 0.03974336                              | 0.01090913                                  | 0.00670088                    | 0.73406357                                             | 0.00716371                            | 1.00000000 |
| 16A                                  | 0.00085171                           | 0.01907194          | 0.00639271              | 0.04126559                              | 0.01132404                                  | 0.00695754                    | 0.76170731                                             | 0.00743264                            | 1.00000000 |
| 17E                                  | 0.00089182                           | 0.01997003          | 0.00669365              | 0.04325018                              | 0.01186455                                  | 0.00729213                    | 0.79767940                                             | 0.00778251                            | 1.00000000 |
| 17F                                  | 0.00089372                           | 0.02001251          | 0.00670788              | 0.04334270                              | 0.01188988                                  | 0.00730773                    | 0.79937767                                             | 0.00779906                            | 1.00000000 |
| 18A                                  | 0.00221525                           | 0.04960424          | 0.01662680              | 0.10730448                              | 0.02944860                                  | 0.01809192                    | 0.57469530                                             |                                       | 1.00000000 |
| 19                                   | 0.00221522                           | 0.04960300          | 0.01662640              | 0.10730707                              | 0.02944876                                  | 0.01809230                    | 0.57469556                                             |                                       | 1.00000000 |
| 19C                                  |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 20A                                  | 0.00237800                           | 0.05324853          | 0.01784830              | 0.11522152                              | 0.03161798                                  | 0.01942666                    | 0.61700971                                             |                                       | 1.00000000 |
| 20B                                  | 0.00249470                           | 0.05586076          | 0.01872390              | 0.12087843                              | 0.03316986                                  | 0.02038045                    | 0.64729087                                             |                                       | 1.00000000 |
| 21                                   | 0.00254199                           | 0.05692053          |                         | 0.12319480                              | 0.03380324                                  | 0.02077093                    | 0.65963498                                             |                                       | 1.00000000 |
| 22A                                  |                                      | 0.05773082          |                         | 0.12495766                              | 0.03428605                                  | 0.02106816                    | 0.66905054                                             |                                       | 1.00000000 |
| 22B                                  |                                      | 0.05842136          |                         | 0.12645207                              | 0.03469614                                  | 0.02132008                    | 0.67705256                                             |                                       | 1.00000000 |
| 23                                   |                                      |                     |                         | 0.14467451                              | 0.03969010                                  | 0.02439237                    | 0.77446614                                             |                                       | 1.00000000 |
| 24                                   |                                      |                     |                         | 0.22243002                              | 0.04339444                                  | 0.02843498                    | 0.66607404                                             |                                       | 1.00000000 |
| 25                                   |                                      |                     |                         | 0.14947726                              | 0.03997502                                  | 0.02520426                    | 0.78534346                                             |                                       | 1.00000000 |
| 26A                                  |                                      |                     |                         | 0.14947726                              | 0.03997502                                  | 0.02520426                    | 0.78534346                                             |                                       | 1.00000000 |
| 28G                                  |                                      |                     |                         | 0.05126137                              |                                             |                               | 0.94873863                                             |                                       | 1.00000000 |
| 28H                                  |                                      |                     |                         |                                         |                                             |                               | 1.00000000                                             |                                       | 1.00000000 |
| 28J                                  |                                      |                     |                         |                                         |                                             |                               | 1.00000000                                             |                                       | 1.00000000 |
| 29A                                  |                                      |                     |                         |                                         |                                             |                               | 0.95147783                                             | 0.01307880                            | 1.00000000 |
| 29F                                  |                                      |                     |                         |                                         |                                             |                               | 0.95147785                                             | 0.01307876                            | 1.00000000 |
| 29G                                  |                                      |                     |                         |                                         |                                             |                               | 0.95147785                                             | 0.01307876                            | 1.00000000 |
| 29H                                  |                                      |                     |                         |                                         |                                             |                               | 0.96278381                                             | 0.00904475                            | 1.00000000 |
| 29J                                  |                                      |                     |                         |                                         |                                             |                               | 0.95147787                                             | 0.01307875                            | 1.00000000 |
| 30                                   |                                      |                     |                         |                                         |                                             |                               | 0.96212388                                             | 0.00860328                            | 1.00000000 |
| 31A                                  |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 33A                                  |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 34                                   |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 35                                   |                                      |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |

**TABLE B-2. Factors for Distributing Reach Minimum OMP&R Costs Among Contractors**

Sheet 1 of 2

| Reach No. | Reach Description                                            | NORTH BAY AREA     |                  | SOUTH BAY AREA                |                               |                                   |                   | Total      |
|-----------|--------------------------------------------------------------|--------------------|------------------|-------------------------------|-------------------------------|-----------------------------------|-------------------|------------|
|           |                                                              | Napa County FC&WCD | Solano County WA | Alameda County FC&WCD, Zone 7 | Alameda County Water District | Santa Clara Valley Water District | Future Contractor |            |
| 1         | <b>NORTH BAY AQUEDUCT</b>                                    |                    |                  |                               |                               |                                   |                   |            |
| 2         | Barker Slough thru Fairfield/Vacaville Turnout               | 0.29251728         | 0.70748272       |                               |                               |                                   |                   | 1.00000000 |
| 3A        | Fairfield/Vacaville Turnout to Cordelia Forebay              | 0.42000793         | 0.57999207       |                               |                               |                                   |                   | 1.00000000 |
| 3B        | Cordelia Forebay thru Benicia and Vallejo Turnouts           |                    | 1.00000000       |                               |                               |                                   |                   | 1.00000000 |
| 3B        | Cordelia Forebay thru Napa Turnout Reservoir                 | 1.00000000         |                  |                               |                               |                                   |                   | 1.00000000 |
|           | <b>SOUTH BAY AQUEDUCT</b>                                    |                    |                  |                               |                               |                                   |                   |            |
| 1         | Bethany Reservoir thru Altamont Turnout                      |                    |                  | 0.33980110                    | 0.19515838                    | 0.46504052                        |                   | 1.00000000 |
| 2         | Altamont Turnout thru Patterson Reservoir                    |                    |                  | 0.33978741                    | 0.19516252                    | 0.46505007                        |                   | 1.00000000 |
| 4         | Patterson Reservoir to Del Valle Junction                    |                    |                  | 0.31610985                    | 0.20216089                    | 0.48172926                        |                   | 1.00000000 |
| 5         | Del Valle Junction thru Lake Del Valle                       |                    |                  | 0.53312173                    | 0.12972254                    | 0.33715573                        |                   | 1.00000000 |
| 6         | Del Valle Junction thru South Livermore Turnout              |                    |                  | 0.32478705                    | 0.19906896                    | 0.47614399                        |                   | 1.00000000 |
| 7         | South Livermore Turnout thru Vallecitos Turnout              |                    |                  | 0.14604872                    | 0.25176680                    | 0.60218448                        |                   | 1.00000000 |
| 8         | Vallecitos Turnout thru Alameda-Bayside Turnout              |                    |                  |                               | 0.27934645                    | 0.72065355                        |                   | 1.00000000 |
| 9         | Alameda-Bayside Turnout thru Santa Clara Terminal Facilities |                    |                  |                               |                               | 1.00000000                        |                   | 1.00000000 |
|           | <b>CALIFORNIA AQUEDUCT</b>                                   |                    |                  |                               |                               |                                   |                   |            |
| 1         | Delta thru Bethany Reservoir                                 |                    |                  |                               | 0.00870649                    | 0.02074717                        |                   | N/A        |

| Reach No. | Reach Description                                          | CENTRAL COASTAL AREA          |                             | SOUTHERN CALIFORNIA AREA               |                           |                                 |                                       |                     |
|-----------|------------------------------------------------------------|-------------------------------|-----------------------------|----------------------------------------|---------------------------|---------------------------------|---------------------------------------|---------------------|
|           |                                                            | San Luis Obispo County FC&WCD | Santa Barbara County FC&WCD | Antelope Valley-East Kern Water Agency | Castaic Lake Water Agency | Coachella Valley Water District | Crestline-Lake Arrowhead Water Agency | Desert Water Agency |
| 1         | <b>CALIFORNIA AQUEDUCT</b>                                 |                               |                             |                                        |                           |                                 |                                       |                     |
| 2A        | Delta thru Bethany Reservoir                               | 0.00531803                    | 0.00981112                  | 0.03024584                             | 0.02544226                | 0.02816849                      | 0.00133276                            | 0.01137611          |
| 2B        | Bethany Reservoir to Orestimba Creek                       | 0.00557057                    | 0.01027704                  | 0.03167950                             | 0.02660598                | 0.02949522                      | 0.00139543                            | 0.01191224          |
| 3         | Orestimba Creek to O'Neill Forebay                         | 0.00557667                    | 0.01028833                  | 0.03171597                             | 0.02666336                | 0.02953453                      | 0.00139736                            | 0.01192791          |
| 4         | O'Neill Forebay to Dos Amigos Pumping Plant                | 0.00557562                    | 0.01028637                  | 0.03171043                             | 0.02666656                | 0.02953095                      | 0.00139720                            | 0.01192641          |
| 4         | Dos Amigos Pumping Plant to Panoche Creek                  | 0.00557450                    | 0.01028431                  | 0.03170463                             | 0.02666994                | 0.02952719                      | 0.00139705                            | 0.01192482          |
| 5         | Panoche Creek to Five Points                               | 0.00557309                    | 0.01028175                  | 0.03169736                             | 0.02667416                | 0.02952249                      | 0.00139687                            | 0.01192284          |
| 6         | Five Points to Arroyo Pasajero                             | 0.00557099                    | 0.01027787                  | 0.03168637                             | 0.02668054                | 0.02951539                      | 0.00139656                            | 0.01191985          |
| 7         | Arroyo Pasajero to Kettleman City                          | 0.00557031                    | 0.01027662                  | 0.03168285                             | 0.02668259                | 0.02951311                      | 0.00139646                            | 0.01191888          |
| 8C        | Kettleman City thru Milham Avenue                          | 0.00551445                    | 0.01017357                  | 0.03136136                             | 0.02635185                | 0.02920164                      | 0.00138158                            | 0.01179354          |
| 8D        | Milham Avenue thru Avenal Gap                              | 0.00562665                    | 0.01038055                  | 0.03200083                             | 0.02691146                | 0.02980153                      | 0.00141001                            | 0.01203564          |
| 9         | Avenal Gap thru Twisselman Road                            |                               |                             | 0.03436980                             | 0.02785985                | 0.03125286                      | 0.00153069                            | 0.01306310          |
| 10A       | Twisselman Road thru Lost Hills                            |                               |                             | 0.03490578                             | 0.02831966                | 0.03174218                      | 0.00155504                            | 0.01326985          |
| 11B       | Lost Hills to 7th Standard Road                            |                               |                             | 0.03824176                             | 0.03115437                | 0.03478569                      | 0.00170600                            | 0.01455350          |
| 12D       | 7th Standard Road thru Elk Hills Road                      |                               |                             | 0.04009312                             | 0.03274031                | 0.03647572                      | 0.00179001                            | 0.01526741          |
| 12E       | Elk Hills Road thru Tupman Road                            |                               |                             | 0.04014397                             | 0.03279589                | 0.03652306                      | 0.00179253                            | 0.01528847          |
| 13B       | Tupman Road to Buena Vista Pumping Plant                   |                               |                             | 0.04343323                             | 0.03558110                | 0.03952321                      | 0.00194122                            | 0.01655295          |
| 14A       | Buena Vista Pumping Plant thru Santiago Creek              |                               |                             | 0.04552298                             | 0.03718058                | 0.04143137                      | 0.00203618                            | 0.01735961          |
| 14B       | Santiago Creek thru Old River Road                         |                               |                             | 0.04617191                             | 0.03342424                | 0.04202703                      | 0.00206642                            | 0.01761493          |
| 14C       | Old River Road to Wheeler Ridge Pumping Plant              |                               |                             | 0.04735241                             | 0.03220394                | 0.04310736                      | 0.00212063                            | 0.01807432          |
| 15A       | Wheeler Ridge Pumping Plant to Chrisman Pumping Plant      |                               |                             | 0.04804398                             | 0.03267426                | 0.04374004                      | 0.00215235                            | 0.01834317          |
| 16A       | Chrisman Pumping Plant to Edmonston Pumping Plant          |                               |                             | 0.04964403                             | 0.03376234                | 0.04520241                      | 0.00222537                            | 0.01896287          |
| 17E       | Edmonston Pumping Plant to Porter Tunnel                   |                               |                             | 0.05163545                             | 0.03511660                | 0.04702307                      | 0.00231640                            | 0.01973513          |
| 17F       | Porter Tunnel to Junction, West Branch, Calif. Aqueduct    |                               |                             | 0.05173926                             | 0.03518719                | 0.04711769                      | 0.00232108                            | 0.01977493          |
| 18A       | Junction, West Branch, Calif. Aqueduct thru Alamo Pwp.     |                               |                             | 0.13485569                             |                           | 0.11344457                      | 0.00605083                            | 0.05154915          |
| 19        | Alamo Powerplant to Fairmont                               |                               |                             | 0.13485222                             |                           | 0.11344290                      | 0.00605098                            | 0.05154980          |
| 19C       | Buttes Junction thru Buttes Reservoir                      |                               |                             | 1.00000000                             |                           |                                 |                                       |                     |
| 20A       | Fairmont thru 70th Street West                             |                               |                             | 0.06847930                             |                           | 0.12213523                      | 0.00651583                            | 0.05550703          |
| 20B       | 70th Street West to Palmdale                               |                               |                             | 0.02276024                             |                           | 0.12812785                      | 0.00683566                            | 0.05823170          |
| 21        | Palmdale to Littlerock Creek                               |                               |                             | 0.02318952                             |                           | 0.13056387                      | 0.00696663                            | 0.05934507          |
| 22A       | Littlerock Creek to Pearlblossom Pumping Plant             |                               |                             | 0.01181870                             |                           | 0.13242454                      | 0.00706632                            | 0.06019328          |
| 22B       | Pearlblossom Pumping Plant to West Fork Mojave River       |                               |                             |                                        |                           | 0.13400843                      | 0.00715085                            | 0.06091324          |
| 23        | West Fork Mojave River to Silverwood Lake                  |                               |                             |                                        |                           | 0.12416451                      | 0.00818135                            | 0.02168414          |
| 24        | Cedar Springs Dam and Silverwood Lake                      |                               |                             |                                        |                           | 0.02651510                      | 0.01251569                            | 0.01910229          |
| 25        | Silverwood Lake to South Portal San Bernardino Tunnel      |                               |                             |                                        |                           | 0.09751351                      |                                       | 0.01317145          |
| 26A       | South Portal, San Bernardino Tunnel thru Devil Canyon Pwp. |                               |                             |                                        |                           | 0.12013473                      |                                       | 0.01622697          |
| 28G       | Devil Canyon Powerplant to Barton Road                     |                               |                             |                                        |                           | 0.30672992                      |                                       | 0.04143095          |
| 28H       | Barton Road to Lake Perris                                 |                               |                             |                                        |                           | 0.32330286                      |                                       | 0.04366951          |
| 28J       | Perris Dam and Lake Perris                                 |                               |                             |                                        |                           | 0.32330202                      |                                       | 0.04366970          |
| 29A       | Junction, West Branch, Calif. Aqueduct thru Oso P. P.      |                               |                             | 0.00296720                             | 0.05726734                |                                 |                                       |                     |
| 29F       | Oso Pumping Plant thru Quail Embankment                    |                               |                             | 0.00296796                             | 0.05726649                |                                 |                                       |                     |
| 29G       | Quail Embankment thru Warne Powerplant                     |                               |                             |                                        | 0.05742327                |                                 |                                       |                     |
| 29H       | Pyramid Dam and Lake                                       |                               |                             |                                        | 0.03349572                |                                 |                                       |                     |
| 29J       | Pyramid Lake thru Castaic Powerplant                       |                               |                             |                                        | 0.05740996                |                                 |                                       |                     |
| 30        | Castaic Dam and Lake                                       |                               |                             |                                        | 0.03248607                |                                 |                                       |                     |
| 31A       | Avenal Gap to Devil's Den Pumping Plant                    | 0.10542164                    | 0.19449108                  |                                        | 0.07351496                |                                 |                                       |                     |
| 33A       | Devil's Den Pumping Plant thru Tank 1                      | 0.10101221                    | 0.89898779                  |                                        |                           |                                 |                                       |                     |
| 33B       | Tank 1 thru Chorro Valley Turnout                          | 0.10101221                    | 0.89898779                  |                                        |                           |                                 |                                       |                     |
| 34        | Chorro Valley Turnout through Lopez Turnout                | 0.05271277                    | 0.94728723                  |                                        |                           |                                 |                                       |                     |
| 35        | Lopez Turnout thru Guadalupe Turnout                       |                               | 1.00000000                  |                                        |                           |                                 |                                       |                     |

Note: Proportionate use factors reflect permanent capacity water transfer that have been signed as of February 1, 2006.

**TABLE B-2. Factors for Distributing Reach Minimum OMP&R Costs Among Contractors**

Sheet 2 of 2

| Reach No. | SAN JOAQUIN VALLEY AREA |                     |                                     |                                |                                         |                                         |                          |              |                 |                         |                                             |
|-----------|-------------------------|---------------------|-------------------------------------|--------------------------------|-----------------------------------------|-----------------------------------------|--------------------------|--------------|-----------------|-------------------------|---------------------------------------------|
|           | Napa County<br>FC&WCD   | Solano County<br>WA | Alameda County<br>FC&WCD,<br>Zone 7 | Dudley Ridge<br>Water District | Empire West Side<br>Irrigation District | Future Contractor<br>San Joaquin Valley | Kern County Water Agency |              | County of Kings | Oak Flat Water District | Tulare Lake Basin<br>Water Storage District |
|           |                         |                     |                                     |                                |                                         |                                         | Municipal and Industrial | Agricultural |                 |                         |                                             |
|           | CALIFORNIA AQUEDUCT     |                     |                                     |                                |                                         |                                         |                          |              |                 |                         |                                             |
| 1         | 0.00101503              | 0.00145926          | 0.02320270                          | 0.01822142                     | 0.00088480                              | 0.00254117                              | 0.02735295               | 0.27469072   | 0.00247193      | 0.00166749              | 0.02830375                                  |
| 2A        | 0.00106167              | 0.00152624          | 0.00868437                          | 0.01903859                     | 0.00092448                              | 0.00266184                              | 0.02863089               | 0.28700500   | 0.00258450      | 0.00174223              | 0.02957310                                  |
| 2B        | 0.00106383              | 0.00152939          | 0.00870009                          | 0.01908995                     | 0.00092696                              | 0.00266476                              | 0.02867562               | 0.28778222   | 0.00259040      |                         | 0.02965288                                  |
| 3         | 0.00106393              | 0.00152954          | 0.00870024                          | 0.01909529                     | 0.00092722                              | 0.00266425                              | 0.02867409               | 0.28786344   | 0.00259080      |                         | 0.02966116                                  |
| 4         | 0.00106401              | 0.00152968          | 0.00870041                          | 0.01910089                     | 0.00092749                              | 0.00266370                              | 0.02867248               | 0.28794882   | 0.00259124      |                         | 0.02966986                                  |
| 5         | 0.00106413              | 0.00152986          | 0.00870062                          | 0.01910789                     | 0.00092783                              | 0.00266303                              | 0.02867046               | 0.28805544   | 0.00259177      |                         | 0.02968073                                  |
| 6         | 0.00106431              | 0.00153014          | 0.00870096                          | 0.01911848                     | 0.00092835                              | 0.00266203                              | 0.02866740               | 0.28821677   | 0.00259258      |                         | 0.02969716                                  |
| 7         | 0.00106438              | 0.00153022          | 0.00870107                          | 0.01912188                     | 0.00092852                              | 0.00266169                              | 0.02866642               | 0.28826851   | 0.00259284      |                         | 0.02970244                                  |
| 8C        | 0.00105148              | 0.00151159          | 0.00859994                          | 0.01886176                     | 0.00091590                              | 0.00263501                              | 0.02834912               | 0.28434072   | 0.00255999      |                         | 0.02929844                                  |
| 8D        | 0.00107370              | 0.00154358          | 0.00878005                          | 0.01927090                     |                                         | 0.00268862                              | 0.02893698               | 0.29051094   | 0.00165734      |                         | 0.01089124                                  |
| 9         | 0.00079826              | 0.00110157          | 0.00786471                          |                                |                                         |                                         | 0.03143148               | 0.29263291   |                 |                         |                                             |
| 10A       | 0.00081139              | 0.00111953          | 0.00799211                          |                                |                                         |                                         | 0.03193731               | 0.28144288   |                 |                         |                                             |
| 11B       | 0.00065052              | 0.00095254          | 0.00354792                          |                                |                                         |                                         | 0.03506894               | 0.21771722   |                 |                         |                                             |
| 12D       |                         |                     |                                     |                                |                                         |                                         | 0.03681479               | 0.18486151   |                 |                         |                                             |
| 12E       |                         |                     |                                     |                                |                                         |                                         | 0.03687019               | 0.18374304   |                 |                         |                                             |
| 13B       |                         |                     |                                     |                                |                                         |                                         | 0.01413733               | 0.14208658   |                 |                         |                                             |
| 14A       |                         |                     |                                     |                                |                                         |                                         | 0.00599913               | 0.10936622   |                 |                         |                                             |
| 14B       |                         |                     |                                     |                                |                                         |                                         | 0.00609042               | 0.10066378   |                 |                         |                                             |
| 14C       |                         |                     |                                     |                                |                                         |                                         | 0.00625275               | 0.07940837   |                 |                         |                                             |
| 15A       |                         |                     |                                     |                                |                                         |                                         | 0.00634765               | 0.06578229   |                 |                         |                                             |
| 16A       |                         |                     |                                     |                                |                                         |                                         | 0.00656553               | 0.03434119   |                 |                         |                                             |
| 17E       |                         |                     |                                     |                                |                                         |                                         | 0.00201100               |              |                 |                         |                                             |
| 31A       | 0.00628695              | 0.00977801          | 0.02617705                          |                                |                                         | 0.05037550                              |                          | 0.43917148   | 0.00176551      |                         |                                             |

| SOUTHERN CALIFORNIA AREA (continued) |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       |            |
|--------------------------------------|-----------------------------------------|---------------------|-------------------------|-----------------------------------------|---------------------------------------------|-------------------------------|--------------------------------------------------------|---------------------------------------|------------|
| Reach No.                            | Littlerock Creek<br>Irrigation District | Mojave Water Agency | Palmdale Water District | San Bernardino Municipal Water District | San Gabriel Valley Municipal Water District | San Geronio Pass Water Agency | The Metropolitan Water District of Southern California | Ventura County Flood Control District | Total      |
| 1                                    | 0.00049056                              | 0.01818303          | 0.00458550              | 0.02356891                              | 0.00648711                                  | 0.00397380                    | 0.41547239                                             | 0.00427921                            | 1.00000000 |
| 2A                                   | 0.00051386                              | 0.01902951          | 0.00480271              | 0.02467716                              | 0.00679322                                  | 0.00416065                    | 0.43517158                                             | 0.00448242                            | 1.00000000 |
| 2B                                   | 0.00051442                              | 0.01906116          | 0.00480833              | 0.02471121                              | 0.00680191                                  | 0.00416639                    | 0.43566900                                             | 0.00448735                            | 1.00000000 |
| 3                                    | 0.00051433                              | 0.01906070          | 0.00480752              | 0.02470855                              | 0.00680098                                  | 0.00416594                    | 0.43559198                                             | 0.00448650                            | 1.00000000 |
| 4                                    | 0.00051424                              | 0.01906023          | 0.00480668              | 0.02470576                              | 0.00680000                                  | 0.00416546                    | 0.43551100                                             | 0.00448561                            | 1.00000000 |
| 5                                    | 0.00051412                              | 0.01905962          | 0.00480562              | 0.02470229                              | 0.00679878                                  | 0.00416487                    | 0.43540988                                             | 0.00448450                            | 1.00000000 |
| 6                                    | 0.00051392                              | 0.01905870          | 0.00480402              | 0.02469702                              | 0.00679694                                  | 0.00416399                    | 0.43525686                                             | 0.00448280                            | 1.00000000 |
| 7                                    | 0.00051385                              | 0.01905842          | 0.00480349              | 0.02469533                              | 0.00679634                                  | 0.00416372                    | 0.43520780                                             | 0.00448226                            | 1.00000000 |
| 8C                                   | 0.00050870                              | 0.01884315          | 0.00475451              | 0.02443210                              | 0.00672541                                  | 0.00411933                    | 0.44227753                                             | 0.00443733                            | 1.00000000 |
| 8D                                   | 0.00051904                              | 0.01923550          | 0.00485156              | 0.02493497                              | 0.00686329                                  | 0.00420412                    | 0.45134389                                             | 0.00452761                            | 1.00000000 |
| 9                                    | 0.00056296                              | 0.01845645          | 0.00526337              | 0.02706903                              | 0.00744835                                  | 0.00456392                    | 0.48981993                                             | 0.00491076                            | 1.00000000 |
| 10A                                  | 0.00057175                              | 0.01874332          | 0.00534585              | 0.02749934                              | 0.00756597                                  | 0.00463648                    | 0.49755423                                             | 0.00498733                            | 1.00000000 |
| 11B                                  | 0.00062640                              | 0.02052979          | 0.00585888              | 0.03016888                              | 0.00829640                                  | 0.00508658                    | 0.54559067                                             | 0.00546394                            | 1.00000000 |
| 12D                                  | 0.00065673                              | 0.02152073          | 0.00605960              | 0.03165452                              | 0.00870248                                  | 0.00533707                    | 0.57229756                                             | 0.00572844                            | 1.00000000 |
| 12E                                  | 0.00065758                              | 0.02154749          | 0.00606732              | 0.03169920                              | 0.00871431                                  | 0.00534461                    | 0.57307663                                             | 0.00573571                            | 1.00000000 |
| 13B                                  | 0.00071145                              | 0.02330931          | 0.00656455              | 0.03432822                              | 0.00943394                                  | 0.00578787                    | 0.62040339                                             | 0.00620565                            | 1.00000000 |
| 14A                                  | 0.00074569                              | 0.02442760          | 0.00688049              | 0.03600736                              | 0.00989269                                  | 0.00607098                    | 0.65057491                                             | 0.00650421                            | 1.00000000 |
| 14B                                  | 0.00075633                              | 0.02477336          | 0.00697864              | 0.03654173                              | 0.01003745                                  | 0.00616108                    | 0.66009578                                             | 0.00659690                            | 1.00000000 |
| 14C                                  | 0.00077566                              | 0.02540391          | 0.00715715              | 0.03750028                              | 0.01029837                                  | 0.00632270                    | 0.67725661                                             | 0.00676554                            | 1.00000000 |
| 15A                                  | 0.00078697                              | 0.02577340          | 0.00726173              | 0.03806102                              | 0.01045107                                  | 0.00641723                    | 0.68730050                                             | 0.00686434                            | 1.00000000 |
| 16A                                  | 0.00081317                              | 0.02662897          | 0.00750366              | 0.03935225                              | 0.01080332                                  | 0.00663493                    | 0.71046704                                             | 0.00709292                            | 1.00000000 |
| 17E                                  | 0.00084580                              | 0.02769354          | 0.00780477              | 0.04096189                              | 0.01124220                                  | 0.00690630                    | 0.73933042                                             | 0.00737743                            | 1.00000000 |
| 17F                                  | 0.00084750                              | 0.02774917          | 0.00782046              | 0.04104458                              | 0.01126486                                  | 0.00692025                    | 0.74082077                                             | 0.00739226                            | 1.00000000 |
| 18A                                  | 0.00220895                              | 0.04946256          | 0.01657935              | 0.10699871                              | 0.02936451                                  | 0.01804030                    | 0.47144538                                             |                                       | 1.00000000 |
| 19                                   | 0.00220892                              | 0.04946131          | 0.01657891              | 0.10700135                              | 0.02936470                                  | 0.01804074                    | 0.47144817                                             |                                       | 1.00000000 |
| 19C                                  |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 20A                                  | 0.00237800                              | 0.05324853          | 0.01784830              | 0.11522152                              | 0.03161788                                  | 0.01942666                    | 0.50762172                                             |                                       | 1.00000000 |
| 20B                                  | 0.00249470                              | 0.05586076          | 0.01872390              | 0.12087843                              | 0.03316974                                  | 0.02038045                    | 0.53253657                                             |                                       | 1.00000000 |
| 21                                   | 0.00254199                              | 0.05692053          |                         | 0.12319479                              | 0.03380312                                  | 0.02077093                    | 0.54270355                                             |                                       | 1.00000000 |
| 22A                                  |                                         | 0.05773082          |                         | 0.12495766                              | 0.03428593                                  | 0.02106816                    | 0.55045459                                             |                                       | 1.00000000 |
| 22B                                  |                                         | 0.05842136          |                         | 0.12645207                              | 0.03469602                                  | 0.02132008                    | 0.55703795                                             |                                       | 1.00000000 |
| 23                                   |                                         |                     |                         | 0.14467451                              | 0.03969010                                  | 0.02439237                    | 0.63721302                                             |                                       | 1.00000000 |
| 24                                   |                                         |                     |                         | 0.22243002                              | 0.04339445                                  | 0.02843498                    | 0.64760747                                             |                                       | 1.00000000 |
| 25                                   |                                         |                     |                         | 0.11825184                              | 0.03722720                                  | 0.01993915                    | 0.71389685                                             |                                       | 1.00000000 |
| 26A                                  |                                         |                     |                         | 0.14947726                              | 0.03997501                                  | 0.02520426                    | 0.64898177                                             |                                       | 1.00000000 |
| 28G                                  |                                         |                     |                         |                                         |                                             |                               | 0.60057777                                             |                                       | 1.00000000 |
| 28H                                  |                                         |                     |                         | 0.05126136                              |                                             |                               | 0.63302763                                             |                                       | 1.00000000 |
| 28J                                  |                                         |                     |                         |                                         |                                             |                               | 0.63302828                                             |                                       | 1.00000000 |
| 29A                                  |                                         |                     |                         |                                         |                                             |                               | 0.92702291                                             | 0.01274255                            | 1.00000000 |
| 29F                                  |                                         |                     |                         |                                         |                                             |                               | 0.92702302                                             | 0.01274253                            | 1.00000000 |
| 29G                                  |                                         |                     |                         |                                         |                                             |                               | 0.92979606                                             | 0.01278067                            | 1.00000000 |
| 29H                                  |                                         |                     |                         |                                         |                                             |                               | 0.95753173                                             | 0.00897255                            | 1.00000000 |
| 29J                                  |                                         |                     |                         |                                         |                                             |                               | 0.92980918                                             | 0.01278086                            | 1.00000000 |
| 30                                   |                                         |                     |                         |                                         |                                             |                               | 0.95895422                                             | 0.00855971                            | 1.00000000 |
| 31A                                  |                                         | 0.09301782          |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 33A                                  |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 33B                                  |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 34                                   |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |
| 35                                   |                                         |                     |                         |                                         |                                             |                               |                                                        |                                       | 1.00000000 |



**TABLE B-3. Power Costs and Credits, Transmission Costs, and Annual Replacement Deposits for Each Aqueduct Pumping and Power Recovery Plant <sup>a</sup>**

(in dollars)

Sheet 1 of 2

| Calendar<br><br>Year | NORTH BAY AQUEDUCT             |                                  |                                             | SOUTH BAY<br>AQUEDUCT                  | CALIFORNIA AQUEDUCT |                          |                              |                       |                        |                         |
|----------------------|--------------------------------|----------------------------------|---------------------------------------------|----------------------------------------|---------------------|--------------------------|------------------------------|-----------------------|------------------------|-------------------------|
|                      | Reach 1                        | Reach 3A                         | Reach 3B                                    | Reach 1 <sup>c</sup>                   | Reach 1             | Reach 4                  | Reach 14A                    | Reach 15A             | Reach 16A              | Reach 17E               |
|                      | Barker<br>Slough<br>Pumping P. | Cordelia<br>Pumping P.<br>Solano | Cordelia<br>Pumping P.<br>Napa <sup>b</sup> | South Bay &<br>Del Valle<br>Pumping P. | Banks<br>Pumping P. | Dos Amigos<br>Pumping P. | Buena<br>Vista<br>Pumping P. | Teerink<br>Pumping P. | Chrisman<br>Pumping P. | Edmonston<br>Pumping P. |
|                      | [1]                            | [2]                              | [3]                                         | [4]                                    | [5]                 | [6]                      | [7]                          | [8]                   | [9]                    | [10]                    |
| 1961                 | 0                              | 0                                | 0                                           | 0                                      | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1962                 | 0                              | 0                                | 0                                           | 37,731                                 | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1963                 | 0                              | 0                                | 0                                           | 56,414                                 | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1964                 | 0                              | 0                                | 0                                           | 71,745                                 | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1965                 | 0                              | 0                                | 0                                           | 138,653                                | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1966                 | 0                              | 0                                | 0                                           | 189,402                                | 0                   | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1967                 | 0                              | 0                                | 0                                           | 220,327                                | 28,554              | 0                        | 0                            | 0                     | 0                      | 0                       |
| 1968                 | 0                              | 0                                | 7,128                                       | 339,261                                | 1,286,777           | 227,505                  | 0                            | 0                     | 0                      | 0                       |
| 1969                 | 0                              | 0                                | 8,557                                       | 274,851                                | 817,304             | 119,303                  | 0                            | 0                     | 0                      | 0                       |
| 1970                 | 0                              | 0                                | 13,666                                      | 439,983                                | 330,508             | 193,720                  | 2,940                        | 0                     | 0                      | 0                       |
| 1971                 | 0                              | 0                                | 10,626                                      | 413,657                                | 559,946             | 205,206                  | 134,340                      | 7,921                 | 0                      | 0                       |
| 1972                 | 0                              | 0                                | 14,430                                      | 615,164                                | 1,072,833           | 541,628                  | 305,868                      | 159,125               | 348,235                | 1,179,797               |
| 1973                 | 0                              | 0                                | 14,453                                      | 477,134                                | 880,234             | 469,676                  | 469,104                      | 472,197               | 829,325                | 2,961,697               |
| 1974                 | 0                              | 0                                | 17,508                                      | 502,473                                | 959,269             | 536,361                  | 514,168                      | 553,285               | 993,796                | 3,522,973               |
| 1975                 | 0                              | 0                                | 14,801                                      | 373,706                                | 1,315,916           | 536,495                  | 607,981                      | 664,738               | 1,340,518              | 4,675,938               |
| 1976                 | 0                              | 0                                | 20,867                                      | 580,607                                | 878,728             | 572,326                  | 658,261                      | 645,377               | 1,360,502              | 4,740,176               |
| 1977                 | 0                              | 0                                | 22,640                                      | 534,087                                | 631,578             | 178,904                  | 139,856                      | 138,714               | 291,196                | 977,258                 |
| 1978                 | 0                              | 0                                | 21,670                                      | 559,981                                | 3,833,011           | 653,606                  | 966,756                      | 926,444               | 1,728,268              | 6,104,186               |
| 1979                 | 0                              | 0                                | 16,240                                      | 614,117                                | 3,394,344           | 994,921                  | 805,839                      | 788,539               | 1,612,105              | 5,564,009               |
| 1980                 | 0                              | 0                                | 19,936                                      | 523,445                                | 1,981,918           | 818,368                  | 857,033                      | 846,757               | 1,808,192              | 6,269,482               |
| 1981                 | 0                              | 0                                | 23,863                                      | 639,976                                | 1,975,220           | 1,640,814                | 1,197,553                    | 1,189,437             | 2,731,775              | 9,388,367               |
| 1982                 | 0                              | 0                                | 12,078                                      | 484,808                                | 3,405,761           | 1,148,258                | 1,159,605                    | 1,212,973             | 2,557,070              | 9,355,533               |
| 1983                 | 0                              | 0                                | 2,339                                       | 77,394                                 | 1,264,426           | 140,742                  | 276,289                      | 264,076               | 545,887                | 1,827,188               |
| 1984                 | 0                              | 0                                | 4,797                                       | 289,827                                | 1,390,432           | 555,409                  | 551,468                      | 508,111               | 1,044,264              | 3,507,659               |
| 1985                 | 0                              | 0                                | 10,220                                      | 456,051                                | 2,830,593           | 1,283,981                | 1,336,378                    | 1,378,587             | 2,994,227              | 10,459,919              |
| 1986                 | 0                              | 0                                | 15,484                                      | 827,079                                | 7,180,656           | 2,282,364                | 2,290,023                    | 2,343,903             | 5,062,706              | 17,643,403              |
| 1987                 | 0                              | 0                                | 27,223                                      | 901,077                                | 3,924,603           | 1,996,638                | 1,851,663                    | 1,885,638             | 4,119,308              | 14,361,151              |
| 1988                 | 18,112                         | 19,927                           | 23,868                                      | 932,456                                | 5,377,272           | 2,072,091                | 2,100,427                    | 2,142,121             | 4,724,696              | 16,562,202              |
| 1989                 | 30,783                         | 45,783                           | 26,501                                      | 1,211,118                              | 10,887,880          | 3,334,006                | 3,427,675                    | 3,553,496             | 7,936,397              | 27,756,045              |
| 1990                 | 53,484                         | 67,109                           | 40,793                                      | 1,881,178                              | 9,523,541           | 4,754,649                | 5,990,489                    | 6,327,687             | 14,254,357             | 50,152,078              |
| 1991                 | 11,254                         | 10,442                           | 5,983                                       | 365,808                                | 3,463,154           | 723,518                  | 1,263,736                    | 1,445,729             | 3,363,863              | 12,019,190              |
| 1992                 | 14,484                         | 13,070                           | 9,398                                       | 327,309                                | 2,700,240           | 808,067                  | 1,071,702                    | 1,121,273             | 2,503,167              | 8,677,102               |
| 1993                 | (12,340)                       | (8,753)                          | (5,393)                                     | (159,836)                              | (333,548)           | (609,139)                | (461,719)                    | (459,965)             | (1,018,142)            | (3,558,718)             |
| 1994                 | 54,407                         | 39,608                           | 29,189                                      | 823,317                                | 4,438,900           | 1,938,280                | 2,325,005                    | 2,375,321             | 5,337,101              | 18,723,854              |
| 1995                 | 20,699                         | 20,620                           | 11,791                                      | 253,482                                | 4,009,296           | 1,076,372                | 924,147                      | 887,105               | 1,948,905              | 6,847,537               |
| 1996                 | 59,545                         | 47,288                           | 23,483                                      | 645,189                                | 9,531,541           | 3,449,781                | 2,444,752                    | 2,341,848             | 5,156,434              | 18,332,558              |
| 1997                 | 69,837                         | 52,935                           | 21,955                                      | 963,877                                | 7,625,930           | 3,064,281                | 2,847,907                    | 2,788,387             | 6,217,434              | 22,057,503              |
| 1998                 | (11,058)                       | (9,488)                          | (4,554)                                     | (124,695)                              | 296,016             | (362,362)                | (316,705)                    | (304,065)             | (673,122)              | (2,350,976)             |
| 1999                 | 30,114                         | 25,288                           | 10,024                                      | 516,703                                | 4,988,797           | 2,287,161                | 1,553,244                    | 1,241,104             | 3,232,010              | 12,564,772              |
| 2000                 | 58,591                         | 42,543                           | 15,078                                      | 860,785                                | 8,018,823           | 3,043,577                | 2,963,119                    | 3,035,444             | 6,985,916              | 25,206,823              |
| 2001                 | 358,726                        | 248,919                          | 213,001                                     | 4,045,747                              | 24,049,006          | 9,826,265                | 14,784,423                   | 15,166,621            | 34,168,448             | 126,253,823             |
| 2002                 | 186,186                        | 102,222                          | 60,093                                      | 2,190,992                              | 16,807,227          | 6,740,615                | 8,238,545                    | 8,538,761             | 19,287,643             | 70,880,768              |
| 2003                 | 175,952                        | 115,069                          | 95,023                                      | 2,487,701                              | 20,922,559          | 8,769,499                | 10,363,118                   | 10,792,509            | 24,604,453             | 90,561,341              |
| 2004                 | 242,315                        | 134,187                          | 103,360                                     | 2,412,375                              | 21,053,063          | 9,018,396                | 11,887,828                   | 12,476,791            | 28,497,369             | 104,778,231             |
| 2005                 | 278,132                        | 143,598                          | 145,812                                     | 2,734,374                              | 28,939,713          | 12,758,363               | 12,347,806                   | 12,701,242            | 28,859,501             | 102,413,846             |
| 2006                 | 434,350                        | 542,507                          | 505,614                                     | 4,307,767                              | 33,549,833          | 14,706,333               | 16,350,132                   | 19,169,010            | 40,671,891             | 144,330,419             |
| 2007                 | 590,980                        | 738,139                          | 687,942                                     | 5,027,189                              | 38,871,852          | 17,446,618               | 22,077,197                   | 25,851,676            | 54,939,980             | 195,095,796             |
| 2008                 | 690,253                        | 862,132                          | 803,503                                     | 5,847,863                              | 45,999,986          | 19,268,723               | 24,159,113                   | 28,321,071            | 60,145,210             | 213,516,519             |
| 2009                 | 471,915                        | 374,214                          | 388,904                                     | 6,372,608                              | 37,179,973          | 17,754,325               | 21,507,786                   | 21,347,482            | 49,937,709             | 187,149,290             |
| 2010                 | 493,421                        | 391,422                          | 416,605                                     | 6,650,471                              | 46,873,631          | 18,790,901               | 22,865,042                   | 22,693,320            | 53,122,285             | 199,115,814             |
| 2011                 | 496,491                        | 391,567                          | 424,332                                     | 6,652,823                              | 43,287,706          | 19,052,728               | 23,317,369                   | 23,158,954            | 54,239,007             | 203,345,555             |
| 2012                 | 514,195                        | 404,948                          | 448,548                                     | 6,869,338                              | 40,874,428          | 19,615,395               | 23,942,931                   | 23,762,637            | 55,653,070             | 208,626,569             |
| 2013                 | 560,407                        | 444,221                          | 504,428                                     | 7,504,849                              | 53,285,819          | 21,971,197               | 27,002,796                   | 26,794,891            | 62,827,735             | 235,583,646             |
| 2014                 | 600,883                        | 476,875                          | 556,466                                     | 8,033,282                              | 48,006,529          | 23,899,101               | 29,494,794                   | 29,262,346            | 68,663,917             | 257,507,932             |
| 2015                 | 616,026                        | 484,040                          | 586,096                                     | 8,149,207                              | 53,829,633          | 24,362,286               | 30,108,161                   | 29,872,480            | 70,109,581             | 262,944,031             |
| 2016                 | 628,039                        | 488,983                          | 611,913                                     | 8,229,208                              | 61,030,991          | 24,867,340               | 30,858,377                   | 30,630,396            | 71,914,894             | 269,754,725             |
| 2017                 | 626,188                        | 481,926                          | 621,252                                     | 8,114,990                              | 55,012,291          | 24,555,395               | 30,503,508                   | 30,286,455            | 71,107,577             | 266,736,485             |
| 2018                 | 648,839                        | 495,855                          | 661,961                                     | 8,340,400                              | 53,261,487          | 25,033,184               | 30,965,041                   | 30,719,149            | 72,110,589             | 270,457,478             |
| 2019                 | 669,869                        | 508,101                          | 701,793                                     | 8,538,566                              | 63,216,351          | 26,673,162               | 33,496,642                   | 33,290,481            | 78,247,055             | 293,634,371             |
| 2020                 | 642,697                        | 480,276                          | 679,785                                     | 8,088,278                              | 55,552,002          | 24,870,075               | 31,095,807                   | 30,901,927            | 72,588,036             | 272,353,992             |
| 2021                 | 642,959                        | 479,487                          | 681,858                                     | 8,075,528                              | 54,611,697          | 24,931,695               | 31,222,790                   | 31,035,297            | 72,909,894             | 273,577,740             |
| 2022                 | 624,138                        | 463,956                          | 657,583                                     | 7,824,210                              | 50,456,450          | 24,097,177               | 30,183,194                   | 30,011,662            | 70,493,638             | 264,512,334             |
| 2023                 | 627,484                        | 466,716                          | 661,896                                     | 7,868,867                              | 54,262,566          | 24,264,404               | 30,400,110                   | 30,226,692            | 71,002,595             | 266,424,794             |
| 2024                 | 649,302                        | 484,720                          | 690,036                                     | 8,160,210                              | 59,907,056          | 25,270,792               | 31,673,659                   | 31,483,793            | 73,972,371             | 277,572,996             |
| 2025                 | 646,528                        | 482,429                          | 686,457                                     | 8,123,162                              | 50,025,808          | 25,035,573               | 31,325,609                   | 31,132,100            | 73,134,690             | 274,412,906             |
| 2026                 | 650,736                        | 485,903                          | 691,887                                     | 8,179,360                              | 62,589,049          | 25,404,461               | 31,874,475                   | 31,686,968            | 74,456,792             | 279,401,955             |
| 2027                 | 641,415                        | 478,212                          | 679,865                                     | 8,054,893                              | 55,603,610          | 24,907,148               | 31,213,982                   | 31,030,218            | 72,900,791             | 273,550,492             |
| 2028                 | 645,640                        | 481,697                          | 685,313                                     | 8,111,316                              | 55,081,163          | 27,017,012               | 31,407,606                   | 31,218,882            | 73,344,757             | 275,212,510             |
| 2029                 | 637,836                        | 475,259                          | 675,250                                     | 8,007,124                              | 54,176,019          | 24,732,992               | 30,989,057                   | 30,807,296            | 72,373,724             | 271,570,563             |
| 2030                 | 642,716                        | 479,286                          | 681,543                                     | 8,072,261                              | 56,833,870          | 24,952,106               | 31,264,952                   | 31,079,264            | 73,015,818             | 273,980,140             |
| 2031                 | 634,372                        | 472,401                          | 670,781                                     | 7,960,854                              | 50,070,394          | 24,041,101               | 29,859,163                   | 29,651,745            | 69,609,093             | 261,113,474             |
| 2032                 | 646,360                        | 482,292                          | 686,244                                     | 8,120,937                              | 56,884,724          | 25,379,100               | 31,928,310                   | 31,753,716            | 74,626,050             | 280,062,751             |
| 2033                 | 677,228                        | 507,762                          | 726,051                                     | 8,533,081                              | 57,859,184          | 26,115,385               | 32,533,252                   | 32,298,632            | 75,868,894             | 284,627,172             |
| 2034                 | 653,549                        | 488,224                          | 695,514                                     | 8,216,921                              | 56,349,428          | 25,704,409               | 32,338,344                   | 32,158,092            | 75,580,908             | 283,646,528             |
| 2035                 | 640,870                        | 477,760                          | 679,160                                     | 8,047,612                              | 55,222,480          | 24,950,395               | 31,300,312                   | 31,120,579            | 73,118,589             | 274,378,059             |
| TOTAL                | 19,984,909                     | 15,881,677                       | 19,972,511                                  | 261,090,005                            | 1,782,008,031       | 787,460,158              | 965,140,135                  | 972,914,432           | 2,257,440,944          | 8,404,613,741           |

a) Starting with 2005 transmission costs that vary and depend on Power usage are included, therefore recovered through the variable component.

b) Power costs for the period 1968 through 1987 are for an interim facility.

c) The costs of Del Valle Pumping Plant are combined with those of South Bay Pumping Plant to simplify the cost allocations.

**TABLE B-3. Power Costs and Credits, Transmission Costs, and Annual Replacement Deposits for Each Aqueduct Pumping and Power Recovery Plant**

(in dollars)

Sheet 2 of 2

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued)  |                                              |                                            |                                            |                                      |                                  |                                    |                                                                   |                                                                              | GRAND<br>TOTAL |
|------------------|----------------------------------|----------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------|----------------------------------|------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------|----------------|
|                  | Reach 18A<br>Alamo<br>Powerplant | Reach 22B<br>Pearblossom<br>Pumping<br>Plant | Reach 23<br>Mojave<br>Siphon<br>Powerplant | Reach 26A<br>Devil<br>Canyon<br>Powerplant | Reach 29A<br>Oso<br>Pumping<br>Plant | Reach 29G<br>Warne<br>Powerplant | Reach 29J<br>Castaic<br>Powerplant | Reach 31A<br>Las Perillas<br>and<br>Badger Hill<br>Pumping Plants | Reach 33A<br>Devil's Den,<br>Bluestone and<br>Polonio Pass<br>Pumping Plants |                |
|                  | [11]                             | [12]                                         | [13]                                       | [14]                                       | [15]                                 | [16]                             | [17]                               | [18]                                                              | [19]                                                                         | [20]           |
| 1961             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 0              |
| 1962             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 37,731         |
| 1963             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 56,414         |
| 1964             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 71,745         |
| 1965             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 138,653        |
| 1966             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 189,402        |
| 1967             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 0                                                                 | 0                                                                            | 248,881        |
| 1968             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 118,578                                                           | 0                                                                            | 1,979,249      |
| 1969             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 76,920                                                            | 0                                                                            | 1,296,935      |
| 1970             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 134,749                                                           | 0                                                                            | 1,115,566      |
| 1971             | 0                                | 0                                            | 0                                          | 0                                          | 0                                    | 0                                | 0                                  | 168,689                                                           | 0                                                                            | 1,500,385      |
| 1972             | 0                                | 81,484                                       | 0                                          | (3,112)                                    | 157,005                              | 0                                | (385,696)                          | 213,251                                                           | 0                                                                            | 4,300,002      |
| 1973             | 0                                | 586,209                                      | 0                                          | (956,197)                                  | 238,650                              | 0                                | (1,193,216)                        | 120,014                                                           | 0                                                                            | 5,369,270      |
| 1974             | 0                                | 566,546                                      | 0                                          | (963,572)                                  | 286,640                              | 0                                | (1,823,397)                        | 119,505                                                           | 0                                                                            | 5,785,555      |
| 1975             | 0                                | 587,227                                      | 0                                          | (1,125,945)                                | 421,687                              | 0                                | (2,835,302)                        | 92,012                                                            | 0                                                                            | 6,669,772      |
| 1976             | 0                                | 871,540                                      | 0                                          | (1,567,312)                                | 278,869                              | 0                                | (2,512,021)                        | 146,530                                                           | 0                                                                            | 6,674,452      |
| 1977             | 0                                | 275,980                                      | 0                                          | (1,262,960)                                | 17,319                               | 0                                | (1,701,284)                        | 84,225                                                            | 0                                                                            | 327,513        |
| 1978             | 0                                | 1,758,473                                    | 0                                          | (3,345,147)                                | 215,573                              | 0                                | (2,361,377)                        | 190,745                                                           | 0                                                                            | 11,252,189     |
| 1979             | 0                                | 1,770,844                                    | 0                                          | (3,381,969)                                | 122,134                              | 0                                | (2,752,003)                        | 203,143                                                           | 0                                                                            | 9,752,263      |
| 1980             | 0                                | 1,769,468                                    | 0                                          | (3,508,195)                                | 86,893                               | 0                                | (2,728,494)                        | 182,996                                                           | 0                                                                            | 8,927,799      |
| 1981             | 0                                | 2,049,947                                    | 0                                          | (3,743,153)                                | 382,330                              | 0                                | (2,854,192)                        | 189,573                                                           | 0                                                                            | 14,811,510     |
| 1982             | 0                                | 1,614,895                                    | 0                                          | (3,149,352)                                | 444,009                              | (973,898)                        | (3,476,126)                        | 182,427                                                           | 0                                                                            | 13,978,041     |
| 1983             | 0                                | 301,180                                      | 0                                          | (5,905,161)                                | 59,561                               | (1,314,237)                      | (3,904,690)                        | 18,936                                                            | 0                                                                            | (6,346,070)    |
| 1984             | 0                                | 633,223                                      | 0                                          | (7,865,341)                                | 135,658                              | (2,285,362)                      | 844,120                            | 117,585                                                           | 0                                                                            | (568,150)      |
| 1985             | 0                                | 1,140,057                                    | 0                                          | (10,664,136)                               | 739,708                              | (8,476,552)                      | (19,162,735)                       | 155,931                                                           | 0                                                                            | (15,517,771)   |
| 1986             | (1,080,970)                      | 2,482,042                                    | 0                                          | (12,235,312)                               | 1,037,512                            | (6,269,528)                      | (11,462,662)                       | 317,622                                                           | 0                                                                            | 10,434,322     |
| 1987             | (1,062,392)                      | 1,822,523                                    | 0                                          | (10,871,342)                               | 914,642                              | (6,757,040)                      | (11,630,562)                       | 266,825                                                           | 0                                                                            | 1,749,955      |
| 1988             | (810,907)                        | 2,373,442                                    | 0                                          | (14,772,519)                               | 951,580                              | (7,448,747)                      | (12,677,211)                       | 237,272                                                           | 0                                                                            | 1,826,082      |
| 1989             | (822,973)                        | 4,130,250                                    | 0                                          | (19,098,882)                               | 1,543,985                            | (8,790,866)                      | (14,657,167)                       | 309,851                                                           | 0                                                                            | 20,823,882     |
| 1990             | (845,641)                        | 6,810,694                                    | 0                                          | (21,336,948)                               | 3,032,334                            | (11,692,826)                     | (19,863,014)                       | 466,262                                                           | 0                                                                            | 49,616,226     |
| 1991             | (351,262)                        | 1,306,263                                    | 0                                          | (5,781,948)                                | 778,874                              | (5,250,121)                      | (8,731,129)                        | 17,608                                                            | 0                                                                            | 4,660,962      |
| 1992             | (997,736)                        | 1,116,809                                    | 0                                          | (9,903,370)                                | 541,093                              | (5,955,563)                      | (9,599,392)                        | 111,742                                                           | 0                                                                            | (7,440,605)    |
| 1993             | (84,856)                         | (370,935)                                    | 0                                          | (7,956,659)                                | (244,261)                            | (4,607,075)                      | (9,740,511)                        | (122,190)                                                         | 0                                                                            | (29,754,004)   |
| 1994             | (93,031)                         | 2,529,462                                    | 0                                          | (12,122,861)                               | 1,039,474                            | (6,228,273)                      | (10,867,596)                       | 226,378                                                           | (1,127)                                                                      | 10,567,408     |
| 1995             | (1,297,179)                      | 951,513                                      | 0                                          | (10,256,635)                               | 342,312                              | (3,827,718)                      | (7,403,219)                        | 261,423                                                           | 0                                                                            | (5,229,549)    |
| 1996             | (2,959,744)                      | 2,725,712                                    | (941,959)                                  | (13,155,960)                               | 908,180                              | (5,026,221)                      | (8,969,945)                        | 321,137                                                           | 0                                                                            | 14,933,619     |
| 1997             | (2,876,697)                      | 3,431,693                                    | (1,932,337)                                | (13,519,660)                               | 990,932                              | (5,184,788)                      | (9,027,058)                        | 322,753                                                           | 208,816                                                                      | 18,123,700     |
| 1998             | (2,244,105)                      | (439,496)                                    | (1,385,473)                                | (10,955,475)                               | (66,088)                             | (1,888,975)                      | (4,963,075)                        | (56,675)                                                          | (87,016)                                                                     | (25,947,387)   |
| 1999             | (2,811,928)                      | 1,779,376                                    | (2,482,354)                                | (14,772,635)                               | 666,901                              | (5,526,541)                      | (9,954,674)                        | 156,194                                                           | 234,077                                                                      | (6,262,367)    |
| 2000             | (5,129,549)                      | 3,965,245                                    | (4,429,149)                                | (25,857,029)                               | 1,215,093                            | (9,464,490)                      | (17,958,033)                       | 231,108                                                           | 380,555                                                                      | (6,815,550)    |
| 2001             | (3,298,048)                      | 18,936,837                                   | (3,649,034)                                | (19,510,279)                               | 6,409,025                            | (7,987,833)                      | (13,981,232)                       | 1,080,182                                                         | 2,152,324                                                                    | 209,266,921    |
| 2002             | (4,926,146)                      | 10,444,621                                   | (5,255,302)                                | (24,676,762)                               | 3,719,061                            | (10,286,902)                     | (18,455,024)                       | 529,085                                                           | 1,320,943                                                                    | 85,446,626     |
| 2003             | (3,431,664)                      | 14,432,726                                   | (6,760,773)                                | (28,047,969)                               | 4,378,568                            | (10,281,922)                     | (17,307,974)                       | 621,149                                                           | 1,482,405                                                                    | 123,971,770    |
| 2004             | (6,227,543)                      | 16,376,616                                   | (7,691,607)                                | (31,246,141)                               | 5,297,989                            | (12,033,953)                     | (20,022,179)                       | 651,104                                                           | 1,718,113                                                                    | 137,426,314    |
| 2005             | (6,140,331)                      | 18,183,010                                   | (6,778,759)                                | (30,599,808)                               | 4,111,678                            | (8,251,156)                      | (13,698,272)                       | 826,136                                                           | 1,669,939                                                                    | 160,644,824    |
| 2006             | (3,764,700)                      | 23,462,935                                   | (7,175,900)                                | (26,680,000)                               | 7,428,524                            | (11,210,000)                     | (19,709,600)                       | 1,163,771                                                         | 2,964,936                                                                    | 241,047,822    |
| 2007             | (4,373,715)                      | 30,115,761                                   | (6,756,637)                                | (25,406,557)                               | 10,742,147                           | (11,778,965)                     | (20,915,620)                       | 1,615,020                                                         | 4,711,056                                                                    | 339,279,859    |
| 2008             | (6,189,900)                      | 33,639,787                                   | (9,073,900)                                | (34,110,000)                               | 11,452,528                           | (15,487,500)                     | (26,300,000)                       | 1,714,091                                                         | 4,269,285                                                                    | 358,898,764    |
| 2009             | (5,582,798)                      | 28,046,158                                   | (6,526,500)                                | (31,566,025)                               | 10,798,203                           | (15,056,975)                     | (25,235,050)                       | 2,060,870                                                         | 5,630,664                                                                    | 305,052,753    |
| 2010             | (5,630,503)                      | 30,037,151                                   | (6,596,625)                                | (31,860,925)                               | 11,368,480                           | (15,179,275)                     | (25,547,250)                       | 2,147,558                                                         | 5,889,638                                                                    | 336,004,161    |
| 2011             | (5,676,281)                      | 30,367,489                                   | (6,650,250)                                | (32,188,175)                               | 11,735,942                           | (15,783,600)                     | (26,489,900)                       | 2,148,291                                                         | 5,891,827                                                                    | 337,721,875    |
| 2012             | (5,769,388)                      | 31,832,503                                   | (6,829,725)                                | (32,405,200)                               | 11,743,121                           | (15,166,000)                     | (25,589,750)                       | 2,215,693                                                         | 6,093,187                                                                    | 346,836,500    |
| 2013             | (5,758,155)                      | 35,872,660                                   | (6,846,000)                                | (32,831,750)                               | 13,191,807                           | (15,745,900)                     | (26,533,450)                       | 2,413,537                                                         | 6,684,231                                                                    | 406,926,969    |
| 2014             | (5,782,172)                      | 38,710,496                                   | (6,862,800)                                | (32,782,050)                               | 14,533,787                           | (16,350,900)                     | (27,474,150)                       | 2,578,042                                                         | 7,175,687                                                                    | 440,248,065    |
| 2015             | (5,871,801)                      | 40,142,387                                   | (7,063,725)                                | (33,390,200)                               | 14,599,172                           | (16,195,075)                     | (27,196,050)                       | 2,614,131                                                         | 7,283,496                                                                    | 455,983,876    |
| 2016             | (5,934,499)                      | 41,397,662                                   | (7,156,875)                                | (34,005,575)                               | 14,899,964                           | (16,378,000)                     | (27,521,050)                       | 2,639,035                                                         | 7,357,905                                                                    | 474,313,433    |
| 2017             | (5,889,990)                      | 40,650,842                                   | (7,174,350)                                | (33,978,600)                               | 14,859,536                           | (16,553,625)                     | (27,844,950)                       | 2,603,479                                                         | 7,251,675                                                                    | 461,970,084    |
| 2018             | (5,952,829)                      | 42,026,567                                   | (7,497,975)                                | (34,012,075)                               | 14,716,265                           | (15,866,450)                     | (26,739,700)                       | 2,673,652                                                         | 7,461,317                                                                    | 469,502,755    |
| 2019             | (5,999,923)                      | 44,031,274                                   | (7,434,300)                                | (34,727,425)                               | 16,605,791                           | (17,564,050)                     | (29,744,150)                       | 2,735,345                                                         | 7,645,616                                                                    | 514,524,569    |
| 2020             | (5,968,950)                      | 41,544,900                                   | (7,439,925)                                | (34,666,150)                               | 15,186,007                           | (16,962,875)                     | (28,605,000)                       | 2,595,164                                                         | 7,226,835                                                                    | 470,162,881    |
| 2021             | (5,995,458)                      | 41,657,103                                   | (7,505,625)                                | (34,811,350)                               | 15,289,894                           | (17,103,250)                     | (28,864,150)                       | 2,591,196                                                         | 7,214,975                                                                    | 470,642,280    |
| 2022             | (6,023,188)                      | 40,097,764                                   | (7,496,625)                                | (34,809,700)                               | 14,887,951                           | (17,179,400)                     | (28,996,400)                       | 2,512,957                                                         | 6,981,242                                                                    | 449,298,943    |
| 2023             | (6,038,651)                      | 40,457,982                                   | (7,534,575)                                | (34,804,325)                               | 14,963,422                           | (17,170,050)                     | (28,980,700)                       | 2,526,859                                                         | 7,022,777                                                                    | 456,648,863    |
| 2024             | (6,012,989)                      | 42,254,501                                   | (7,548,000)                                | (34,803,550)                               | 15,507,613                           | (17,174,325)                     | (28,988,450)                       | 2,617,557                                                         | 7,293,730                                                                    | 483,011,022    |
| 2025             | (5,984,836)                      | 41,481,835                                   | (7,540,050)                                | (34,514,225)                               | 15,438,958                           | (17,174,375)                     | (28,988,500)                       | 2,606,023                                                         | 7,259,276                                                                    | 467,679,368    |
| 2026             | (6,048,709)                      | 42,714,696                                   | (7,632,075)                                | (35,124,800)                               | 15,543,198                           | (17,174,325)                     | (28,988,450)                       | 2,623,519                                                         | 7,311,547                                                                    | 488,646,187    |
| 2027             | (6,006,644)                      | 41,537,726                                   | (7,471,275)                                | (34,768,475)                               | 15,336,903                           | (17,206,350)                     | (29,039,650)                       | 2,584,773                                                         | 7,195,788                                                                    | 471,223,422    |
| 2028             | (5,985,400)                      | 41,864,710                                   | (7,494,675)                                | (34,815,075)                               | 15,392,376                           | (17,146,300)                     | (28,938,450)                       | 2,602,335                                                         | 7,248,262                                                                    | 475,933,679    |
| 2029             | (5,995,317)                      | 41,260,171                                   | (7,507,125)                                | (34,810,950)                               | 15,223,639                           | (17,174,300)                     | (28,988,500)                       | 2,569,899                                                         | 7,151,359                                                                    | 466,173,996    |
| 2030             | (5,985,494)                      | 41,638,163                                   | (7,494,825)                                | (34,815,050)                               | 15,344,555                           | (17,174,350)                     | (28,988,550)                       | 2,590,178                                                         | 7,211,943                                                                    | 473,328,526    |
| 2031             | (5,989,113)                      | 40,640,717                                   | (7,813,125)                                | (34,452,000)                               | 14,252,885                           | (16,066,325)                     | (27,113,650)                       | 2,555,496                                                         | 7,108,328                                                                    | 447,206,591    |
| 2032             | (6,059,237)                      | 41,989,327                                   | (7,908,300)                                | (34,774,175)                               | 15,906,565                           | (17,670,050)                     | (29,942,350)                       | 2,605,331                                                         | 7,257,209                                                                    | 481,974,804    |
| 2033             | (6,024,927)                      | 44,226,118                                   | (7,942,800)                                | (34,611,900)                               | 15,488,615                           | (16,256,200)                     | (27,577,100)                       | 2,733,636                                                         | 7,640,513                                                                    | 497,422,596    |
| 2034             | (6,054,396)                      | 42,483,681                                   | (7,981,350)                                | (34,688,400)                               | 16,111,895                           | (17,689,125)                     | (29,983,550)                       | 2,635,212                                                         | 7,346,477                                                                    | 488,012,361    |
| 2035             | (6,056,370)                      | 41,725,361                                   | (7,716,375)                                | (35,001,675)                               | 15,365,079                           | (17,192,050)                     | (29,116,400)                       | 2,582,504                                                         | 7,189,011                                                                    | 471,714,901    |
| TOTAL            | (221,899,035)                    | 1,284,903,903                                | (262,889,034)                              | (1,390,336,103)                            | 465,069,742                          | (643,640,552)                    | (1,123,386,862)                    | 82,145,929                                                        | 211,048,821                                                                  | 13,887,523,352 |

**TABLE B-4. Annual Table A Amounts to Project Water**

(in acre-feet)

Sheet 1 of 4

| Calendar<br><br>Year | NORTH BAY AREA                        |                        |           | SOUTH BAY AREA <sup>a</sup>            |                                        |                                            |            | CENTRAL COASTAL AREA                   |                                      |           |
|----------------------|---------------------------------------|------------------------|-----------|----------------------------------------|----------------------------------------|--------------------------------------------|------------|----------------------------------------|--------------------------------------|-----------|
|                      | Napa <sup>b</sup><br>County<br>FC&WCD | Solano<br>County<br>WA | Total     | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total      | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total     |
|                      | [1]                                   | [2]                    | [3]       | [4]                                    | [5]                                    | [6]                                        | [7]        | [8]                                    | [9]                                  | [10]      |
| 1962                 | 0                                     | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0         |
| 1963                 | 0                                     | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0         |
| 1964                 | 0                                     | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0         |
| 1965                 | 0                                     | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0         |
| 1966                 | 0                                     | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0         |
| 1967                 | 0                                     | 0                      | 0         | 507                                    | 5,248                                  | 5,783                                      | 11,538     | 0                                      | 0                                    | 0         |
| 1968                 | 0                                     | 0                      | 0         | 6,900                                  | 15,000                                 | 88,000                                     | 109,900    | 0                                      | 0                                    | 0         |
| 1969                 | 0                                     | 0                      | 0         | 8,200                                  | 15,500                                 | 75,000                                     | 98,700     | 0                                      | 0                                    | 0         |
| 1970                 | 0                                     | 0                      | 0         | 10,000                                 | 16,200                                 | 88,000                                     | 114,200    | 0                                      | 0                                    | 0         |
| 1971                 | 0                                     | 0                      | 0         | 11,200                                 | 17,000                                 | 88,000                                     | 116,200    | 0                                      | 0                                    | 0         |
| 1972                 | 0                                     | 0                      | 0         | 12,400                                 | 17,900                                 | 88,000                                     | 118,300    | 0                                      | 0                                    | 0         |
| 1973                 | 0                                     | 0                      | 0         | 13,600                                 | 18,800                                 | 88,000                                     | 120,400    | 0                                      | 0                                    | 0         |
| 1974                 | 0                                     | 0                      | 0         | 14,800                                 | 19,600                                 | 88,000                                     | 122,400    | 0                                      | 0                                    | 0         |
| 1975                 | 0                                     | 0                      | 0         | 16,000                                 | 20,500                                 | 88,000                                     | 124,500    | 0                                      | 0                                    | 0         |
| 1976                 | 0                                     | 0                      | 0         | 17,200                                 | 21,300                                 | 88,000                                     | 126,500    | 0                                      | 0                                    | 0         |
| 1977                 | 0                                     | 0                      | 0         | 18,400                                 | 22,200                                 | 88,000                                     | 128,600    | 0                                      | 0                                    | 0         |
| 1978                 | 0                                     | 0                      | 0         | 19,600                                 | 23,100                                 | 88,000                                     | 130,700    | 0                                      | 0                                    | 0         |
| 1979                 | 0                                     | 0                      | 0         | 20,800                                 | 23,900                                 | 88,000                                     | 132,700    | 0                                      | 0                                    | 0         |
| 1980                 | 0                                     | 500                    | 500       | 22,000                                 | 24,800                                 | 88,000                                     | 134,800    | 1,000                                  | 946                                  | 1,946     |
| 1981                 | 0                                     | 650                    | 650       | 23,000                                 | 26,000                                 | 88,000                                     | 137,000    | 1,000                                  | 1,813                                | 2,813     |
| 1982                 | 0                                     | 800                    | 800       | 24,000                                 | 27,200                                 | 88,000                                     | 139,200    | 2,000                                  | 3,626                                | 5,626     |
| 1983                 | 0                                     | 950                    | 950       | 25,000                                 | 28,400                                 | 88,000                                     | 141,400    | 3,000                                  | 5,439                                | 8,439     |
| 1984                 | 0                                     | 1,100                  | 1,100     | 26,000                                 | 29,600                                 | 88,000                                     | 143,600    | 4,500                                  | 8,198                                | 12,698    |
| 1985                 | 0                                     | 1,250                  | 1,250     | 27,000                                 | 30,800                                 | 88,000                                     | 145,800    | 7,500                                  | 13,638                               | 21,138    |
| 1986                 | 0                                     | 1,400                  | 1,400     | 28,000                                 | 32,100                                 | 88,000                                     | 148,100    | 10,000                                 | 18,210                               | 28,210    |
| 1987                 | 0                                     | 1,550                  | 1,550     | 29,000                                 | 33,300                                 | 88,000                                     | 150,300    | 12,500                                 | 22,704                               | 35,204    |
| 1988                 | 5,745                                 | 9,726                  | 15,471    | 30,000                                 | 34,500                                 | 88,000                                     | 152,500    | 15,500                                 | 28,222                               | 43,722    |
| 1989                 | 6,195                                 | 18,420                 | 24,615    | 31,000                                 | 35,700                                 | 90,000                                     | 156,700    | 20,000                                 | 36,342                               | 56,342    |
| 1990                 | 6,940                                 | 21,250                 | 28,190    | 32,000                                 | 36,900                                 | 92,000                                     | 160,900    | 25,000                                 | 45,486                               | 70,486    |
| 1991                 | 7,290                                 | 22,300                 | 29,590    | 34,000                                 | 38,400                                 | 94,000                                     | 166,400    | 25,000                                 | 45,486                               | 70,486    |
| 1992                 | 7,840                                 | 24,170                 | 32,010    | 36,000                                 | 39,900                                 | 96,000                                     | 171,900    | 25,000                                 | 45,486                               | 70,486    |
| 1993                 | 8,490                                 | 26,130                 | 34,620    | 38,000                                 | 41,400                                 | 98,000                                     | 177,400    | 25,000                                 | 45,486                               | 70,486    |
| 1994                 | 9,135                                 | 28,080                 | 37,215    | 40,000                                 | 42,000                                 | 100,000                                    | 182,000    | 25,000                                 | 45,486                               | 70,486    |
| 1995                 | 9,780                                 | 34,250                 | 44,030    | 42,000                                 | 42,000                                 | 100,000                                    | 184,000    | 25,000                                 | 45,486                               | 70,486    |
| 1996                 | 10,425                                | 37,800                 | 48,225    | 44,000                                 | 42,000                                 | 100,000                                    | 186,000    | 25,000                                 | 45,486                               | 70,486    |
| 1997                 | 11,065                                | 38,250                 | 49,315    | 46,000                                 | 42,000                                 | 100,000                                    | 188,000    | 6,215                                  | 38,986                               | 45,201    |
| 1998                 | 11,710                                | 38,710                 | 50,420    | 46,000                                 | 42,000                                 | 100,000                                    | 188,000    | 6,215                                  | 38,986                               | 45,201    |
| 1999                 | 15,850                                | 39,170                 | 55,020    | 46,000                                 | 42,000                                 | 100,000                                    | 188,000    | 25,000                                 | 45,486                               | 70,486    |
| 2000                 | 16,325                                | 39,620                 | 55,945    | 68,000                                 | 42,000                                 | 100,000                                    | 210,000    | 25,000                                 | 45,486                               | 70,486    |
| 2001                 | 20,725                                | 45,836                 | 66,561    | 78,000                                 | 42,000                                 | 100,000                                    | 220,000    | 25,000                                 | 45,486                               | 70,486    |
| 2002                 | 21,100                                | 46,296                 | 67,396    | 78,000                                 | 42,000                                 | 100,000                                    | 220,000    | 25,000                                 | 45,486                               | 70,486    |
| 2003                 | 21,475                                | 46,756                 | 68,231    | 78,400                                 | 42,000                                 | 100,000                                    | 220,400    | 25,000                                 | 45,486                               | 70,486    |
| 2004                 | 21,850                                | 47,206                 | 69,056    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2005                 | 22,225                                | 47,256                 | 69,481    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2006                 | 22,550                                | 47,306                 | 69,856    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2007                 | 22,875                                | 47,356                 | 70,231    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2008                 | 23,200                                | 47,406                 | 70,606    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2009                 | 23,525                                | 47,456                 | 70,981    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2010                 | 23,850                                | 47,506                 | 71,356    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2011                 | 24,175                                | 47,556                 | 71,731    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2012                 | 24,500                                | 47,606                 | 72,106    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2013                 | 24,775                                | 47,656                 | 72,431    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2014                 | 25,150                                | 47,706                 | 72,856    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2015                 | 25,825                                | 47,756                 | 73,581    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2016                 | 26,450                                | 47,756                 | 74,206    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2017                 | 27,075                                | 47,756                 | 74,831    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2018                 | 27,700                                | 47,756                 | 75,456    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2019                 | 28,325                                | 47,756                 | 76,081    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2020                 | 28,925                                | 47,756                 | 76,681    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2021                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2022                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2023                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2024                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2025                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2026                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2027                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2028                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2029                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2030                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2031                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2032                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2033                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2034                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| 2035                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                                 | 45,486                               | 70,486    |
| TOTAL                | 1,048,440                             | 2,049,856              | 3,098,296 | 3,720,815                              | 2,459,248                              | 6,510,783                                  | 12,690,846 | 1,189,430                              | 2,218,494                            | 3,407,924 |

a) Table A amounts for the South Bay area were supplied by non-Project water from June 1962 through November 1967. Actual delivery quantities of Project water are shown for 1967.

b) District's Table A amounts exclude the amounts supplied by non-Project water from 1968 through 1987.

**TABLE B-4. Annual Table A Amounts to Project Water**

(in acre-feet) Sheet 2 of 4

| Calendar<br><br>Year | SAN JOAQUIN VALLEY AREA           |                                               |                                |              |            |                       |                               |                                                   |            |
|----------------------|-----------------------------------|-----------------------------------------------|--------------------------------|--------------|------------|-----------------------|-------------------------------|---------------------------------------------------|------------|
|                      | Dudley Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Kern County Water Agency       |              |            | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total      |
|                      |                                   |                                               | Municipal<br>and<br>Industrial | Agricultural | Total      |                       |                               |                                                   |            |
|                      | [11]                              | [12]                                          | [13]                           | [14]         | [15]       | [16]                  | [17]                          | [18]                                              | [19]       |
| 1962                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1963                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1964                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1965                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1966                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1967                 | 0                                 | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1968                 | 14,300                            | 1,000                                         | 0                              | 46,600       | 46,600     | 900                   | 2,300                         | 12,250                                            | 77,350     |
| 1969                 | 14,325                            | 3,000                                         | 0                              | 95,700       | 95,700     | 1,200                 | 2,500                         | 46,350                                            | 163,075    |
| 1970                 | 15,700                            | 3,000                                         | 28,700                         | 116,400      | 145,100    | 1,300                 | 2,600                         | 34,300                                            | 202,000    |
| 1971                 | 17,900                            | 3,000                                         | 35,700                         | 154,600      | 190,300    | 1,300                 | 2,800                         | 36,500                                            | 251,800    |
| 1972                 | 20,000                            | 3,000                                         | 39,200                         | 231,500      | 270,700    | 1,400                 | 5,366                         | 112,600                                           | 413,066    |
| 1973                 | 22,000                            | 3,000                                         | 43,500                         | 267,000      | 310,500    | 1,500                 | 3,100                         | 43,552                                            | 383,652    |
| 1974                 | 33,390                            | 3,000                                         | 48,000                         | 299,000      | 347,000    | 1,500                 | 3,471                         | 72,289                                            | 460,650    |
| 1975                 | 40,555                            | 3,000                                         | 52,700                         | 358,120      | 410,820    | 1,600                 | 3,576                         | 86,258                                            | 545,809    |
| 1976                 | 30,921                            | 3,000                                         | 56,100                         | 386,050      | 442,150    | 1,600                 | 4,039                         | 61,707                                            | 543,417    |
| 1977                 | 30,400                            | 3,000                                         | 60,600                         | 423,000      | 483,600    | 1,700                 | 3,700                         | 59,000                                            | 581,400    |
| 1978                 | 32,500                            | 0                                             | 64,100                         | 470,200      | 534,300    | 1,900                 | 3,900                         | 63,300                                            | 635,900    |
| 1979                 | 38,544                            | 3,000                                         | 67,600                         | 516,300      | 583,900    | 2,000                 | 4,000                         | 71,241                                            | 702,685    |
| 1980                 | 41,000                            | 3,000                                         | 71,100                         | 563,400      | 634,500    | 2,200                 | 5,700                         | 71,700                                            | 758,100    |
| 1981                 | 41,000                            | 3,000                                         | 74,800                         | 616,600      | 691,400    | 2,300                 | 4,300                         | 76,000                                            | 818,000    |
| 1982                 | 41,000                            | 3,000                                         | 79,600                         | 665,700      | 745,300    | 2,500                 | 4,500                         | 80,200                                            | 876,500    |
| 1983                 | 42,900                            | 3,000                                         | 83,500                         | 721,600      | 805,100    | 2,800                 | 3,770                         | 9,548                                             | 867,118    |
| 1984                 | 45,100                            | 3,000                                         | 103,600                        | 757,000      | 860,600    | 3,100                 | 4,800                         | 62,611                                            | 979,211    |
| 1985                 | 47,200                            | 3,000                                         | 108,900                        | 806,100      | 915,000    | 3,400                 | 4,900                         | 45,549                                            | 1,019,049  |
| 1986                 | 49,300                            | 3,000                                         | 113,400                        | 820,246      | 933,646    | 3,700                 | 5,100                         | 97,200                                            | 1,091,946  |
| 1987                 | 51,400                            | 3,000                                         | 119,100                        | 904,400      | 1,023,500  | 4,000                 | 5,200                         | 101,400                                           | 1,188,500  |
| 1988                 | 53,500                            | 3,000                                         | 123,900                        | 950,700      | 1,074,600  | 4,000                 | 5,400                         | 105,600                                           | 1,246,100  |
| 1989                 | 55,600                            | 3,000                                         | 128,200                        | 984,100      | 1,112,300  | 4,000                 | 5,600                         | 109,900                                           | 1,290,400  |
| 1990                 | 28,850                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,313,450  |
| 1991                 | 53,411                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,338,011  |
| 1992                 | 57,700                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,342,300  |
| 1993                 | 57,700                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,342,300  |
| 1994                 | 57,700                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,342,300  |
| 1995                 | 57,700                            | 3,000                                         | 134,600                        | 1,018,800    | 1,153,400  | 4,000                 | 5,700                         | 118,500                                           | 1,342,300  |
| 1996                 | 53,370                            | 3,000                                         | 134,600                        | 982,460      | 1,117,060  | 4,000                 | 5,700                         | 118,500                                           | 1,301,630  |
| 1997                 | 53,370                            | 3,000                                         | 134,600                        | 978,130      | 1,112,730  | 4,000                 | 5,700                         | 118,500                                           | 1,297,300  |
| 1998                 | 53,370                            | 3,000                                         | 134,600                        | 953,130      | 1,087,730  | 4,000                 | 5,700                         | 118,500                                           | 1,272,300  |
| 1999                 | 53,370                            | 3,000                                         | 134,600                        | 953,130      | 1,087,730  | 4,000                 | 5,700                         | 118,500                                           | 1,272,300  |
| 2000                 | 53,370                            | 3,000                                         | 134,600                        | 886,130      | 1,020,730  | 4,000                 | 5,700                         | 118,500                                           | 1,205,300  |
| 2001                 | 53,370                            | 3,000                                         | 134,600                        | 866,349      | 1,000,949  | 4,000                 | 5,700                         | 118,500                                           | 1,185,519  |
| 2002                 | 57,343                            | 3,000                                         | 134,600                        | 866,349      | 1,000,949  | 4,000                 | 5,700                         | 111,527                                           | 1,182,519  |
| 2003                 | 57,343                            | 3,000                                         | 134,600                        | 866,349      | 1,000,949  | 4,000                 | 5,700                         | 111,127                                           | 1,182,119  |
| 2004                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 96,227                                            | 1,170,000  |
| 2005                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 96,227                                            | 1,170,000  |
| 2006                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2007                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2008                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2009                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2010                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2011                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2012                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2013                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2014                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2015                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2016                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2017                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2018                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2019                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2020                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2021                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2022                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2023                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2024                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2025                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2026                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2027                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2028                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2029                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2030                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2031                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2032                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2033                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2034                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2035                 | 57,343                            | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| TOTAL                | 3,361,478                         | 199,000                                       | 7,693,900                      | 52,271,303   | 59,965,203 | 403,050               | 352,822                       | 6,173,823                                         | 70,455,376 |

**TABLE B-4. Annual Table A Amounts to Project Water**

(in acre-feet)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                    |                                          |                                                    |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [20]                                                | [21]                               | [22]                                     | [23]                                               | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                       | [29]                                                    |
| 1962             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1963             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1964             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1965             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1966             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1967             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1968             | 0                                                   | 3,700                              | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1969             | 0                                                   | 5,000                              | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1970             | 0                                                   | 5,700                              | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1971             | 0                                                   | 6,700                              | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 20,000                                              | 8,936                              | 5,200                                    | 526                                                | 8,000                     | 170                                           | 8,400                     | 1,620                         | 1,677                                                      | 122                                                     |
| 1973             | 25,000                                              | 12,400                             | 5,800                                    | 870                                                | 9,000                     | 290                                           | 10,700                    | 2,940                         | 48,000                                                     | 11,500                                                  |
| 1974             | 30,000                                              | 15,400                             | 6,400                                    | 1,160                                              | 10,000                    | 400                                           | 13,100                    | 4,260                         | 50,000                                                     | 12,300                                                  |
| 1975             | 35,000                                              | 18,200                             | 7,000                                    | 1,450                                              | 11,000                    | 520                                           | 15,400                    | 5,580                         | 52,500                                                     | 13,100                                                  |
| 1976             | 44,000                                              | 21,200                             | 7,600                                    | 1,740                                              | 12,000                    | 640                                           | 17,800                    | 6,900                         | 55,000                                                     | 14,000                                                  |
| 1977             | 50,000                                              | 24,100                             | 8,421                                    | 2,030                                              | 13,000                    | 730                                           | 20,200                    | 8,220                         | 57,500                                                     | 14,800                                                  |
| 1978             | 57,000                                              | 24,762                             | 9,242                                    | 2,320                                              | 14,000                    | 920                                           | 22,000                    | 9,340                         | 60,000                                                     | 15,700                                                  |
| 1979             | 63,000                                              | 28,000                             | 10,063                                   | 2,610                                              | 15,000                    | 1,040                                         | 24,900                    | 10,260                        | 62,500                                                     | 16,600                                                  |
| 1980             | 69,200                                              | 30,400                             | 10,884                                   | 2,900                                              | 17,000                    | 1,150                                         | 27,200                    | 11,180                        | 65,500                                                     | 17,400                                                  |
| 1981             | 75,000                                              | 32,800                             | 12,105                                   | 3,190                                              | 19,000                    | 1,270                                         | 23,100                    | 11,700                        | 68,500                                                     | 18,300                                                  |
| 1982             | 81,300                                              | 34,800                             | 13,326                                   | 3,480                                              | 21,000                    | 1,380                                         | 22,843                    | 12,320                        | 71,500                                                     | 19,100                                                  |
| 1983             | 87,700                                              | 37,300                             | 14,547                                   | 3,770                                              | 23,000                    | 1,500                                         | 34,300                    | 12,940                        | 74,500                                                     | 19,900                                                  |
| 1984             | 35,000                                              | 39,600                             | 15,768                                   | 4,060                                              | 25,000                    | 1,610                                         | 36,700                    | 13,560                        | 78,000                                                     | 20,700                                                  |
| 1985             | 40,000                                              | 41,800                             | 16,989                                   | 4,350                                              | 27,000                    | 1,730                                         | 39,000                    | 14,180                        | 81,500                                                     | 21,800                                                  |
| 1986             | 42,000                                              | 43,600                             | 18,210                                   | 4,640                                              | 29,000                    | 1,840                                         | 41,400                    | 14,800                        | 85,000                                                     | 23,200                                                  |
| 1987             | 44,000                                              | 45,600                             | 19,431                                   | 4,930                                              | 31,500                    | 1,960                                         | 43,700                    | 15,420                        | 89,000                                                     | 24,600                                                  |
| 1988             | 46,000                                              | 48,000                             | 20,652                                   | 5,220                                              | 34,000                    | 2,070                                         | 46,000                    | 16,040                        | 93,000                                                     | 26,000                                                  |
| 1989             | 125,700                                             | 50,100                             | 21,873                                   | 5,510                                              | 36,500                    | 2,190                                         | 48,500                    | 16,660                        | 97,000                                                     | 27,400                                                  |
| 1990             | 132,100                                             | 52,000                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 101,500                                                    | 28,800                                                  |
| 1991             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1992             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1993             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1994             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1995             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1996             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1997             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 50,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1998             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 1999             | 138,400                                             | 54,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 17,300                        | 102,600                                                    | 28,800                                                  |
| 2000             | 138,400                                             | 95,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2001             | 138,400                                             | 95,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2002             | 141,400                                             | 95,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2003             | 141,400                                             | 95,200                             | 23,100                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2004             | 141,400                                             | 95,200                             | 33,000                                   | 5,800                                              | 38,100                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2005             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2006             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2007             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2008             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2009             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2010             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2011             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2012             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2013             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2014             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2015             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2016             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2017             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2018             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2019             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2020             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2021             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2022             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2023             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2024             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2025             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2026             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2027             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2028             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2029             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2030             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2031             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2032             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2033             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2034             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2035             | 141,400                                             | 95,200                             | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| TOTAL            | 7,432,000                                           | 4,545,098                          | 4,334,011                                | 321,556                                            | 2,476,500                 | 127,210                                       | 3,760,043                 | 1,127,720                     | 5,909,177                                                  | 1,641,322                                               |

**TABLE B-4. Annual Table A Amounts to Project Water**

(in acre-feet)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                   |                                                                    |                                                   |             | FEATHER RIVER AREA   |                    |                            |           | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|--------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|-------------|----------------------|--------------------|----------------------------|-----------|-------------------------------------------|----------------|
|                  | San<br>Gorgonio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total       | City of<br>Yuba City | County of<br>Butte | Plumas<br>County<br>FC&WCD | Total     |                                           |                |
|                  | [30]                                       | [31]                                                               | [32]                                              | [33]        | [34]                 | [35]               | [36]                       | [37]      | [38]                                      | [39]           |
| 1962             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 0              |
| 1963             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 0              |
| 1964             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 0              |
| 1965             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 0              |
| 1966             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 0              |
| 1967             | 0                                          | 0                                                                  | 0                                                 | 0           | 0                    | 0                  | 0                          | 0         | 0                                         | 11,538         |
| 1968             | 0                                          | 0                                                                  | 0                                                 | 3,700       | 0                    | 300                | 250                        | 550       | 0                                         | 191,500        |
| 1969             | 0                                          | 0                                                                  | 0                                                 | 5,000       | 0                    | 350                | 270                        | 620       | 0                                         | 267,395        |
| 1970             | 0                                          | 0                                                                  | 0                                                 | 5,700       | 0                    | 400                | 300                        | 700       | 0                                         | 322,600        |
| 1971             | 0                                          | 0                                                                  | 0                                                 | 6,700       | 0                    | 450                | 440                        | 890       | 0                                         | 375,590        |
| 1972             | 0                                          | 154,772                                                            | 0                                                 | 209,423     | 0                    | 500                | 470                        | 970       | 0                                         | 741,759        |
| 1973             | 0                                          | 354,600                                                            | 0                                                 | 481,100     | 0                    | 600                | 500                        | 1,100     | 0                                         | 986,252        |
| 1974             | 0                                          | 454,900                                                            | 0                                                 | 597,920     | 0                    | 700                | 530                        | 1,230     | 0                                         | 1,182,200      |
| 1975             | 0                                          | 555,200                                                            | 0                                                 | 714,950     | 0                    | 1,050              | 560                        | 1,610     | 0                                         | 1,386,869      |
| 1976             | 0                                          | 655,600                                                            | 0                                                 | 836,480     | 0                    | 1,400              | 590                        | 1,990     | 0                                         | 1,508,387      |
| 1977             | 0                                          | 755,900                                                            | 0                                                 | 954,901     | 0                    | 1,800              | 620                        | 2,420     | 0                                         | 1,667,321      |
| 1978             | 0                                          | 856,300                                                            | 0                                                 | 1,049,584   | 0                    | 1,200              | 650                        | 1,850     | 0                                         | 1,818,034      |
| 1979             | 0                                          | 956,600                                                            | 0                                                 | 1,190,573   | 0                    | 1,450              | 680                        | 2,130     | 0                                         | 2,028,088      |
| 1980             | 6,800                                      | 1,057,000                                                          | 1,000                                             | 1,317,614   | 0                    | 1,100              | 710                        | 1,810     | 0                                         | 2,214,770      |
| 1981             | 7,800                                      | 1,157,300                                                          | 2,000                                             | 1,432,065   | 0                    | 1,200              | 740                        | 1,940     | 0                                         | 2,392,468      |
| 1982             | 8,800                                      | 1,257,600                                                          | 3,000                                             | 1,550,449   | 0                    | 1,200              | 770                        | 1,970     | 0                                         | 2,574,545      |
| 1983             | 9,800                                      | 1,358,000                                                          | 4,000                                             | 1,681,257   | 0                    | 1,200              | 800                        | 2,000     | 0                                         | 2,701,164      |
| 1984             | 10,800                                     | 1,458,300                                                          | 5,000                                             | 1,744,098   | 1,600                | 1,200              | 830                        | 3,630     | 0                                         | 2,884,337      |
| 1985             | 11,800                                     | 1,558,700                                                          | 6,000                                             | 1,864,849   | 1,700                | 1,200              | 860                        | 3,760     | 0                                         | 3,055,846      |
| 1986             | 12,900                                     | 1,659,300                                                          | 8,000                                             | 1,983,890   | 2,100                | 1,200              | 890                        | 4,190     | 0                                         | 3,257,736      |
| 1987             | 14,000                                     | 1,759,800                                                          | 10,000                                            | 2,103,941   | 2,500                | 1,200              | 920                        | 4,620     | 0                                         | 3,484,115      |
| 1988             | 15,100                                     | 1,860,400                                                          | 13,000                                            | 2,225,482   | 2,900                | 1,200              | 960                        | 5,060     | 0                                         | 3,688,335      |
| 1989             | 16,200                                     | 1,961,000                                                          | 16,000                                            | 2,424,633   | 3,300                | 1,200              | 1,000                      | 5,500     | 0                                         | 3,958,190      |
| 1990             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,500,600   | 3,800                | 1,200              | 1,040                      | 6,040     | 0                                         | 4,079,666      |
| 1991             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,510,200   | 9,600                | 1,200              | 1,080                      | 11,880    | 0                                         | 4,126,567      |
| 1992             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,510,200   | 9,600                | 1,200              | 1,120                      | 11,920    | 0                                         | 4,138,816      |
| 1993             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,510,200   | 9,600                | 1,200              | 1,160                      | 11,960    | 0                                         | 4,146,966      |
| 1994             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,510,200   | 9,600                | 1,200              | 1,200                      | 12,000    | 0                                         | 4,154,201      |
| 1995             | 17,300                                     | 2,011,500                                                          | 20,000                                            | 2,510,200   | 9,600                | 1,200              | 1,250                      | 12,050    | 0                                         | 4,163,066      |
| 1996             | 0                                          | 2,011,500                                                          | 20,000                                            | 2,492,900   | 9,600                | 1,200              | 1,300                      | 12,100    | 0                                         | 4,111,341      |
| 1997             | 0                                          | 2,011,500                                                          | 20,000                                            | 2,492,900   | 9,600                | 1,200              | 1,350                      | 12,150    | 0                                         | 4,084,866      |
| 1998             | 0                                          | 2,011,500                                                          | 20,000                                            | 2,517,900   | 9,600                | 1,200              | 1,400                      | 12,200    | 0                                         | 4,086,021      |
| 1999             | 2,000                                      | 2,011,500                                                          | 20,000                                            | 2,519,900   | 9,600                | 2,890              | 1,450                      | 13,940    | 0                                         | 4,119,646      |
| 2000             | 3,000                                      | 2,011,500                                                          | 20,000                                            | 2,565,900   | 9,600                | 2,890              | 1,510                      | 14,000    | 0                                         | 4,121,631      |
| 2001             | 4,000                                      | 2,011,500                                                          | 20,000                                            | 2,566,900   | 9,600                | 3,500              | 1,570                      | 14,670    | 0                                         | 4,124,136      |
| 2002             | 4,000                                      | 2,011,500                                                          | 20,000                                            | 2,569,900   | 9,600                | 3,500              | 1,630                      | 14,730    | 0                                         | 4,125,031      |
| 2003             | 5,000                                      | 2,011,500                                                          | 20,000                                            | 2,570,900   | 9,600                | 3,500              | 1,690                      | 14,790    | 0                                         | 4,126,926      |
| 2004             | 6,000                                      | 2,011,500                                                          | 20,000                                            | 2,581,800   | 9,600                | 3,500              | 0                          | 13,100    | 0                                         | 4,127,061      |
| 2005             | 6,500                                      | 1,911,500                                                          | 20,000                                            | 2,582,300   | 9,600                | 1,200              | 0                          | 10,800    | 0                                         | 4,125,686      |
| 2006             | 7,000                                      | 1,911,500                                                          | 20,000                                            | 2,582,800   | 9,600                | 1,200              | 324                        | 11,124    | 0                                         | 4,126,885      |
| 2007             | 7,500                                      | 1,911,500                                                          | 20,000                                            | 2,583,300   | 9,600                | 27,500             | 720                        | 37,820    | 0                                         | 4,154,456      |
| 2008             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,020                      | 39,120    | 0                                         | 4,165,931      |
| 2009             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,090                      | 39,190    | 0                                         | 4,166,376      |
| 2010             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,160                      | 39,260    | 0                                         | 4,166,821      |
| 2011             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,240                      | 39,340    | 0                                         | 4,167,276      |
| 2012             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,320                      | 39,420    | 0                                         | 4,167,731      |
| 2013             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,410                      | 39,510    | 0                                         | 4,168,146      |
| 2014             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,500                      | 39,600    | 0                                         | 4,168,661      |
| 2015             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,600                      | 39,700    | 0                                         | 4,169,486      |
| 2016             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,170,211      |
| 2017             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,170,836      |
| 2018             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,171,461      |
| 2019             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,086      |
| 2020             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,686      |
| 2021             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2022             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2023             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2024             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2025             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2026             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2027             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2028             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2029             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2030             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2031             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2032             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2033             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2034             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2035             | 17,300                                     | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                | 27,500             | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| TOTAL            | 747,200                                    | 109,260,272                                                        | 988,000                                           | 142,670,109 | 449,900              | 852,580            | 106,474                    | 1,408,954 | 0                                         | 233,731,505    |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 1 of 16

| Calendar<br><br>Year | Grizzly<br>Valley<br><br>Pipeline<br><br>PC<br><br>FC&WCD | NORTH BAY AQUEDUCT |          |                                 |           | SOUTH BAY AQUEDUCT |         |         |           |         |         |  |    |
|----------------------|-----------------------------------------------------------|--------------------|----------|---------------------------------|-----------|--------------------|---------|---------|-----------|---------|---------|--|----|
|                      |                                                           | Reach 1            | Reach 3A | Reach 3B<br><br>NC <sup>a</sup> | Total     | Reach 1            |         | Reach 2 | Reach 4   | Reach 5 |         |  |    |
|                      |                                                           |                    |          |                                 |           |                    | AC      |         |           | AC      | AC      |  | AC |
|                      |                                                           |                    |          |                                 |           |                    |         |         |           |         |         |  |    |
| Year                 | FC&WCD                                                    | SCWA               | SCWA     | FC&WCD                          |           | ACWD               | FC&WCD  | FC&WCD  | FC&WCD    | ACWD    | FC&WCD  |  |    |
|                      | [1]                                                       | [2]                | [3]      | [4]                             | [5]       | [6]                | [7]     | [8]     | [9]       | [10]    | [11]    |  |    |
| 1962                 | 0                                                         | 0                  | 0        | 0                               | 0         | 8,412              | 141     | 353     | 0         | 0       | 0       |  |    |
| 1963                 | 0                                                         | 0                  | 0        | 0                               | 0         | 10,914             | 814     | 917     | 0         | 0       | 0       |  |    |
| 1964                 | 0                                                         | 0                  | 0        | 0                               | 0         | 19,238             | 248     | 1,425   | 0         | 0       | 0       |  |    |
| 1965                 | 0                                                         | 0                  | 0        | 0                               | 0         | 15,280             | 637     | 1,830   | 138       | 0       | 0       |  |    |
| 1966                 | 0                                                         | 0                  | 0        | 0                               | 0         | 0                  | 2,475   | 2,537   | 499       | 0       | 0       |  |    |
| 1967                 | 0                                                         | 0                  | 0        | 0                               | 0         | 0                  | 1,527   | 2,391   | 862       | 0       | 0       |  |    |
| 1968                 | 0                                                         | 0                  | 0        | 1,214                           | 1,214     | 0                  | 1,608   | 3,799   | 721       | 0       | 5       |  |    |
| 1969                 | 0                                                         | 0                  | 0        | 2,687                           | 2,687     | 0                  | 1,165   | 3,459   | 1,851     | 0       | 160     |  |    |
| 1970                 | 70                                                        | 0                  | 0        | 3,618                           | 3,618     | 0                  | 1,345   | 4,558   | 3,182     | 0       | 164     |  |    |
| 1971                 | 64                                                        | 0                  | 0        | 2,521                           | 2,521     | 0                  | 546     | 1,908   | 2,403     | 0       | 160     |  |    |
| 1972                 | 505                                                       | 0                  | 0        | 3,647                           | 3,647     | 0                  | 1,066   | 4,605   | 2,041     | 1,489   | 2,777   |  |    |
| 1973                 | 679                                                       | 0                  | 0        | 3,792                           | 3,792     | 0                  | 430     | 1,123   | 1,193     | 0       | 229     |  |    |
| 1974                 | 648                                                       | 0                  | 0        | 4,870                           | 4,870     | 0                  | 177     | 0       | 975       | 0       | 162     |  |    |
| 1975                 | 405                                                       | 0                  | 0        | 6,840                           | 6,840     | 0                  | 137     | 1,783   | 1,864     | 0       | 120     |  |    |
| 1976                 | 382                                                       | 0                  | 0        | 7,122                           | 7,122     | 0                  | 265     | 7,204   | 3,384     | 0       | 817     |  |    |
| 1977                 | 303                                                       | 0                  | 0        | 8,226                           | 8,226     | 0                  | 210     | 4,491   | 2,213     | 0       | 524     |  |    |
| 1978                 | 278                                                       | 0                  | 0        | 6,034                           | 6,034     | 0                  | 422     | 2,426   | 3,754     | 0       | 2,034   |  |    |
| 1979                 | 329                                                       | 0                  | 0        | 6,561                           | 6,561     | 0                  | 197     | 4,283   | 5,567     | 0       | 3,937   |  |    |
| 1980                 | 295                                                       | 0                  | 0        | 6,707                           | 6,707     | 0                  | 77      | 3,883   | 6,686     | 1,508   | 0       |  |    |
| 1981                 | 355                                                       | 0                  | 0        | 9,001                           | 9,001     | 0                  | 1,250   | 4,648   | 5,273     | 5,752   | 1,157   |  |    |
| 1982                 | 305                                                       | 0                  | 0        | 1,213                           | 1,213     | 0                  | 473     | 3,043   | 4,406     | 0       | 630     |  |    |
| 1983                 | 262                                                       | 0                  | 0        | 2,287                           | 2,287     | 0                  | 179     | 2,712   | 1,714     | 0       | 50      |  |    |
| 1984                 | 272                                                       | 0                  | 0        | 2,923                           | 2,923     | 0                  | 165     | 4,219   | 2,219     | 0       | 55      |  |    |
| 1985                 | 254                                                       | 0                  | 0        | 4,039                           | 4,039     | 0                  | 213     | 5,199   | 2,060     | 0       | 63      |  |    |
| 1986                 | 317                                                       | 1,400              | 0        | 3,519                           | 4,919     | 0                  | 200     | 6,052   | 2,062     | 0       | 212     |  |    |
| 1987                 | 452                                                       | 1,550              | 0        | 7,693                           | 9,243     | 0                  | 218     | 7,538   | 2,372     | 0       | 285     |  |    |
| 1988                 | 523                                                       | 1                  | 9,725    | 5,392                           | 15,118    | 0                  | 222     | 8,302   | 4,681     | 0       | 189     |  |    |
| 1989                 | 486                                                       | 10                 | 17,246   | 6,195                           | 23,451    | 0                  | 222     | 8,051   | 6,562     | 0       | 418     |  |    |
| 1990                 | 548                                                       | 3,275              | 15,856   | 6,940                           | 26,071    | 0                  | 256     | 8,160   | 8,347     | 0       | 593     |  |    |
| 1991                 | 420                                                       | 3,117              | 3,855    | 1,380                           | 8,352     | 0                  | 162     | 3,676   | 3,269     | 0       | 359     |  |    |
| 1992                 | 485                                                       | 5,553              | 9,220    | 4,001                           | 18,774    | 0                  | 217     | 5,177   | 2,188     | 0       | 154     |  |    |
| 1993                 | 444                                                       | 14,709             | 14,471   | 5,286                           | 34,466    | 0                  | 190     | 5,843   | 8,430     | 1,650   | 5,964   |  |    |
| 1994                 | 492                                                       | 10,343             | 14,913   | 6,792                           | 32,048    | 0                  | 132     | 4,482   | 5,427     | 0       | 822     |  |    |
| 1995                 | 308                                                       | 5,452              | 15,893   | 5,182                           | 26,527    | 0                  | 278     | 6,236   | 7,195     | 0       | 955     |  |    |
| 1996                 | 360                                                       | 12,930             | 17,069   | 4,893                           | 34,892    | 0                  | 277     | 6,151   | 5,119     | 0       | 388     |  |    |
| 1997                 | 231                                                       | 16,029             | 17,501   | 4,341                           | 37,871    | 0                  | 138     | 6,647   | 6,501     | 1,323   | 1,582   |  |    |
| 1998                 | 0                                                         | 11,562             | 18,204   | 5,359                           | 35,125    | 0                  | 106     | 3,748   | 2,493     | 0       | 1,277   |  |    |
| 1999                 | 0                                                         | 15,191             | 19,562   | 5,304                           | 40,057    | 0                  | 148     | 3,048   | 8,227     | 0       | 1,444   |  |    |
| 2000                 | 0                                                         | 15,490             | 21,525   | 4,958                           | 41,973    | 0                  | 110     | 7,464   | 9,761     | 0       | 946     |  |    |
| 2001                 | 0                                                         | 14,849             | 19,737   | 9,345                           | 43,931    | 0                  | 105     | 7,822   | 4,879     | 0       | 3,010   |  |    |
| 2002                 | 0                                                         | 18,841             | 19,719   | 6,875                           | 45,435    | 0                  | 93      | 7,758   | 11,619    | 0       | 2,446   |  |    |
| 2003                 | 0                                                         | 17,260             | 16,691   | 7,646                           | 41,597    | 0                  | 108     | 7,916   | 11,348    | 0       | 2,887   |  |    |
| 2004                 | 0                                                         | 20,951             | 22,051   | 8,134                           | 51,136    | 0                  | 72      | 11,754  | 9,737     | 0       | 3,763   |  |    |
| 2005                 | 0                                                         | 18,290             | 19,529   | 7,669                           | 45,488    | 0                  | 1,430   | 11,520  | 10,100    | 0       | 1,826   |  |    |
| 2006                 | 270                                                       | 18,904             | 29,212   | 15,708                          | 63,824    | 0                  | 605     | 11,163  | 12,327    | 0       | 4,245   |  |    |
| 2007                 | 600                                                       | 19,870             | 20,975   | 17,000                          | 57,845    | 0                  | 112     | 12,960  | 17,492    | 0       | 4,327   |  |    |
| 2008                 | 630                                                       | 43,548             | 20,975   | 24,975                          | 89,498    | 0                  | 11,395  | 9,798   | 26,204    | 0       | 4,327   |  |    |
| 2009                 | 2,090                                                     | 40,831             | 6,625    | 23,525                          | 70,981    | 0                  | 11,395  | 9,798   | 26,204    | 0       | 4,327   |  |    |
| 2010                 | 2,160                                                     | 40,881             | 6,625    | 23,850                          | 71,356    | 0                  | 15,362  | 9,048   | 25,255    | 0       | 4,327   |  |    |
| 2011                 | 2,240                                                     | 29,406             | 18,150   | 24,175                          | 71,731    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2012                 | 2,320                                                     | 29,456             | 18,150   | 24,500                          | 72,106    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2013                 | 2,410                                                     | 29,506             | 18,150   | 24,775                          | 72,431    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2014                 | 2,500                                                     | 29,556             | 18,150   | 25,150                          | 72,856    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2015                 | 2,600                                                     | 29,606             | 18,150   | 25,825                          | 73,581    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2016                 | 2,700                                                     | 29,606             | 18,150   | 26,450                          | 74,206    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2017                 | 2,700                                                     | 29,606             | 18,150   | 27,075                          | 74,831    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2018                 | 2,700                                                     | 29,606             | 18,150   | 27,700                          | 75,456    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2019                 | 2,700                                                     | 29,606             | 18,150   | 28,325                          | 76,081    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2020                 | 2,700                                                     | 29,606             | 18,150   | 28,925                          | 76,681    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2021                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2022                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2023                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2024                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2025                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2026                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2027                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2028                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2029                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2030                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2031                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2032                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2033                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2034                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| 2035                 | 2,700                                                     | 29,606             | 18,150   | 29,025                          | 76,781    | 0                  | 2,994   | 15,717  | 33,132    | 0       | 2,552   |  |    |
| TOTAL                | 82,292                                                    | 1,110,487          | 830,929  | 1,003,539                       | 2,944,955 | 53,844             | 134,170 | 655,833 | 1,119,104 | 11,722  | 127,917 |  |    |

a) Non-Project water deliveries were pumped from an interim facility from 1968 through 1987.

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 2 of 16

| Calendar<br><br>Year | SOUTH BAY AQUEDUCT <sup>b</sup><br><br>(Continued) |         |      |           |           |            | CALIFORNIA AQUEDUCT        |          |                   |         |      |
|----------------------|----------------------------------------------------|---------|------|-----------|-----------|------------|----------------------------|----------|-------------------|---------|------|
|                      |                                                    |         |      |           |           |            | NORTH SAN JOAQUIN DIVISION |          |                   |         |      |
|                      | Reach 6                                            | Reach 7 |      | Reach 8   | Reach 9   | Total      | Reach 1                    | Reach 2A |                   |         |      |
|                      |                                                    | AC      | ACWD |           |           |            |                            | AC       | OFWD <sup>c</sup> | KCWA    |      |
| FC&WCD               | FC&WCD                                             | (M&I)   |      | (AG)      | FC&WCD    |            |                            |          |                   |         |      |
|                      | [12]                                               | [13]    | [14] | [15]      | [16]      | [17]       | [18]                       | [19]     | [20]              | [21]    | [22] |
| 1962                 | 0                                                  | 0       | 0    | 0         | 0         | 8,906      | 0                          | 0        | 0                 | 0       | 0    |
| 1963                 | 0                                                  | 0       | 0    | 0         | 0         | 12,645     | 0                          | 0        | 0                 | 0       | 0    |
| 1964                 | 0                                                  | 0       | 0    | 0         | 0         | 20,911     | 0                          | 0        | 0                 | 0       | 0    |
| 1965                 | 0                                                  | 1,127   | 0    | 0         | 15,014    | 34,026     | 0                          | 0        | 0                 | 0       | 0    |
| 1966                 | 0                                                  | 14,864  | 0    | 0         | 34,538    | 54,913     | 0                          | 0        | 0                 | 0       | 0    |
| 1967                 | 0                                                  | 12,882  | 0    | 0         | 39,101    | 56,763     | 0                          | 0        | 0                 | 0       | 0    |
| 1968                 | 0                                                  | 24,817  | 0    | 0         | 70,105    | 101,055    | 0                          | 3,084    | 0                 | 0       | 0    |
| 1969                 | 0                                                  | 813     | 0    | 0         | 62,264    | 69,712     | 0                          | 3,016    | 0                 | 0       | 0    |
| 1970                 | 0                                                  | 0       | 0    | 0         | 80,311    | 89,560     | 0                          | 5,911    | 0                 | 0       | 0    |
| 1971                 | 0                                                  | 5,961   | 0    | 0         | 87,606    | 98,584     | 0                          | 7,212    | 0                 | 0       | 0    |
| 1972                 | 0                                                  | 26,182  | 0    | 0         | 100,266   | 138,426    | 0                          | 8,166    | 0                 | 0       | 0    |
| 1973                 | 0                                                  | 2,521   | 0    | 0         | 88,582    | 94,078     | 0                          | 3,214    | 0                 | 0       | 0    |
| 1974                 | 0                                                  | 0       | 0    | 4         | 88,000    | 89,318     | 0                          | 3,471    | 0                 | 0       | 0    |
| 1975                 | 714                                                | 393     | 0    | 593       | 88,000    | 93,604     | 0                          | 3,576    | 0                 | 0       | 0    |
| 1976                 | 5,461                                              | 13,774  | 0    | 7,526     | 88,000    | 126,431    | 0                          | 4,112    | 0                 | 0       | 0    |
| 1977                 | 5,206                                              | 11,284  | 0    | 7,556     | 76,220    | 107,704    | 0                          | 1,472    | 0                 | 0       | 0    |
| 1978                 | 2,348                                              | 854     | 0    | 5,009     | 95,727    | 112,574    | 0                          | 3,906    | 0                 | 0       | 0    |
| 1979                 | 5,341                                              | 3,430   | 0    | 7,444     | 91,991    | 122,190    | 0                          | 6,149    | 0                 | 0       | 0    |
| 1980                 | 6,144                                              | 2,824   | 0    | 6,702     | 88,000    | 115,824    | 0                          | 5,700    | 0                 | 0       | 0    |
| 1981                 | 7,262                                              | 7,595   | 0    | 8,570     | 88,000    | 129,507    | 0                          | 4,300    | 0                 | 0       | 0    |
| 1982                 | 4,571                                              | 1,776   | 0    | 4,540     | 88,000    | 107,439    | 0                          | 3,838    | 0                 | 0       | 0    |
| 1983                 | 111                                                | 0       | 0    | 3,157     | 86,733    | 94,656     | 0                          | 3,822    | 0                 | 0       | 0    |
| 1984                 | 126                                                | 0       | 0    | 3,338     | 88,000    | 98,122     | 0                          | 5,700    | 0                 | 0       | 0    |
| 1985                 | 7,537                                              | 11,203  | 0    | 7,813     | 88,000    | 122,088    | 0                          | 5,433    | 0                 | 0       | 0    |
| 1986                 | 2,083                                              | 5,311   | 0    | 7,068     | 88,000    | 110,988    | 0                          | 5,107    | 0                 | 0       | 0    |
| 1987                 | 12,993                                             | 15,488  | 0    | 9,902     | 88,000    | 136,796    | 0                          | 5,625    | 0                 | 0       | 0    |
| 1988                 | 12,436                                             | 24,259  | 0    | 9,205     | 87,961    | 147,255    | 0                          | 4,412    | 0                 | 0       | 0    |
| 1989                 | 10,974                                             | 17,340  | 0    | 8,702     | 90,000    | 142,269    | 0                          | 6,091    | 0                 | 0       | 0    |
| 1990                 | 15,678                                             | 22,149  | 0    | 9,554     | 91,800    | 156,537    | 0                          | 2,922    | 0                 | 0       | 0    |
| 1991                 | 1,945                                              | 9,155   | 0    | 3,493     | 28,200    | 50,259     | 0                          | 141      | 0                 | 0       | 0    |
| 1992                 | 6,933                                              | 12,621  | 0    | 6,532     | 42,839    | 76,661     | 0                          | 2,239    | 0                 | 0       | 0    |
| 1993                 | 13,208                                             | 1,792   | 0    | 6,829     | 62,065    | 105,971    | 0                          | 2,858    | 0                 | 0       | 0    |
| 1994                 | 9,679                                              | 3,379   | 0    | 19,532    | 57,115    | 100,568    | 0                          | 3,071    | 0                 | 0       | 0    |
| 1995                 | 15,427                                             | 21      | 0    | 17,772    | 28,756    | 76,640     | 0                          | 5,169    | 0                 | 0       | 0    |
| 1996                 | 6,968                                              | 1,871   | 0    | 11,591    | 44,850    | 77,215     | 0                          | 4,904    | 0                 | 0       | 0    |
| 1997                 | 12,654                                             | 1,876   | 0    | 10,864    | 60,601    | 102,186    | 0                          | 5,238    | 0                 | 0       | 0    |
| 1998                 | 8,347                                              | 3,817   | 0    | 11,478    | 39,610    | 70,876     | 0                          | 4,401    | 0                 | 0       | 0    |
| 1999                 | 13,133                                             | 5,326   | 0    | 16,226    | 52,945    | 100,497    | 0                          | 4,871    | 0                 | 0       | 0    |
| 2000                 | 16,396                                             | 4,498   | 0    | 18,100    | 78,258    | 135,533    | 0                          | 4,508    | 0                 | 0       | 0    |
| 2001                 | 13,593                                             | 0       | 0    | 18,004    | 47,922    | 95,335     | 0                          | 3,592    | 638               | 0       | 0    |
| 2002                 | 17,058                                             | 5,112   | 0    | 20,616    | 58,875    | 123,577    | 0                          | 4,885    | 773               | 0       | 0    |
| 2003                 | 16,684                                             | 5,037   | 0    | 12,753    | 75,981    | 132,714    | 0                          | 4,266    | 917               | 0       | 7    |
| 2004                 | 21,260                                             | 4,968   | 0    | 14,916    | 59,458    | 125,928    | 0                          | 4,629    | 786               | 0       | 38   |
| 2005                 | 16,597                                             | 4,139   | 0    | 10,160    | 52,364    | 108,136    | 0                          | 4,194    | 1,046             | 0       | 299  |
| 2006                 | 18,505                                             | 7,309   | 0    | 21,502    | 60,608    | 136,264    | 0                          | 4,928    | 72                | 2,760   | 53   |
| 2007                 | 19,315                                             | 6,889   | 0    | 20,711    | 51,500    | 133,306    | 0                          | 5,700    | 0                 | 4,800   | 53   |
| 2008                 | 13,102                                             | 7,118   | 0    | 23,482    | 59,500    | 154,926    | 0                          | 5,700    | 0                 | 4,800   | 53   |
| 2009                 | 13,102                                             | 6,943   | 0    | 24,457    | 59,500    | 155,726    | 0                          | 5,700    | 0                 | 4,800   | 53   |
| 2010                 | 10,834                                             | 6,943   | 0    | 24,457    | 59,500    | 155,726    | 0                          | 5,700    | 0                 | 4,800   | 53   |
| 2011                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2012                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2013                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2014                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2015                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2016                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2017                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2018                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2019                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2020                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2021                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2022                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2023                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2024                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2025                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2026                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2027                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2028                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2029                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2030                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2031                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2032                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2033                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2034                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| 2035                 | 19,706                                             | 4,000   | 0    | 30,500    | 100,000   | 208,601    | 50                         | 5,700    | 0                 | 4,800   | 0    |
| TOTAL                | 856,375                                            | 425,661 | -    | 1,182,658 | 5,658,666 | 10,225,950 | 1,250                      | 335,433  | 4,232             | 141,960 | 609  |

b) Deliveries were supplied by non-Project water from June 1962 through November 1967.

c) Includes 425 AF of 1988 advance allocation and 141 AF of 1992 advance allocation.



**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 3 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)        |       |          |                      |         |        |              |      |        |         |
|----------------------|----------------------------------------|-------|----------|----------------------|---------|--------|--------------|------|--------|---------|
|                      | NORTH SAN JOAQUIN<br>DIVISION (contd.) |       |          | SAN LUIS<br>DIVISION |         |        |              |      |        |         |
|                      | Reach 2A                               |       |          | Reach 3              |         |        |              |      |        |         |
|                      | TLBWSD                                 | SCVWD | MWDSC    | DRWD                 | SCVWD   | TLBWSD | AC<br>FC&WCD | ACWD | KCWA   |         |
|                      |                                        |       |          |                      |         |        |              |      | (M&I)  | (AG)    |
|                      | [23]                                   | [24]  | [25]     | [26]                 | [27]    | [28]   | [29]         | [30] | [31]   | [32]    |
| 1962                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1963                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1964                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1965                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1966                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1967                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1968                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1969                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1970                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1971                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1972                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1973                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1974                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1975                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1976                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1977                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1978                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1979                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1980                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1981                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1982                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1983                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1984                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1985                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1986                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1987                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1988                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1989                 | 300                                    | 0     | 0        | 602                  | 0       | 0      | 0            | 0    | 0      | 0       |
| 1990                 | 0                                      | 200   | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1991                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1992                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1993                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1994                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1995                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1996                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1997                 | 0                                      | 0     | 11.100   | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1998                 | 0                                      | 0     | (11.100) | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 1999                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2000                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 3.320  | 57.825  |
| 2001                 | 0                                      | 0     | 0        | 0                    | 30,000  | 0      | 0            | 0    | 8.790  | 131,452 |
| 2002                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 21.050 | 50,346  |
| 2003                 | 0                                      | 0     | 29,596   | 0                    | 0       | 0      | 0            | 0    | 0      | 151,044 |
| 2004                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 44,877  |
| 2005                 | 0                                      | 0     | 50,000   | 0                    | 8,804   | 0      | 0            | 0    | 0      | 109,712 |
| 2006                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2007                 | 0                                      | 0     | 0        | 0                    | 30,000  | 0      | 0            | 0    | 0      | 0       |
| 2008                 | 0                                      | 0     | 0        | 0                    | 30,000  | 0      | 0            | 0    | 0      | 0       |
| 2009                 | 0                                      | 0     | 0        | 0                    | 30,000  | 0      | 0            | 0    | 0      | 0       |
| 2010                 | 0                                      | 0     | 0        | 0                    | 30,000  | 0      | 0            | 0    | 0      | 0       |
| 2011                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2012                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2013                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2014                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2015                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2016                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2017                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2018                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2019                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2020                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2021                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2022                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2023                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2024                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2025                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2026                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2027                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2028                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2029                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2030                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2031                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2032                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2033                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2034                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| 2035                 | 0                                      | 0     | 0        | 0                    | 0       | 0      | 0            | 0    | 0      | 0       |
| TOTAL                | 300                                    | 200   | 79,596   | 602                  | 158,804 | 0      | 0            | 0    | 33,160 | 545,256 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 4 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)  |          |        |        |         |        |         |        |       |        |       |
|----------------------|----------------------------------|----------|--------|--------|---------|--------|---------|--------|-------|--------|-------|
|                      | SAN LUIS DIVISION<br>(continued) |          |        |        |         |        |         |        |       |        |       |
|                      | Reach 4                          |          |        |        | Reach 5 |        |         |        |       |        |       |
|                      | KCWA                             |          | DRWD   | TLBWSD | DRWD    | KCWA   |         | MWDSC  | CLWA  | TLBWSD | OFWD  |
|                      | (M&I)                            | (AG)     |        |        |         | (M&I)  | (AG)    |        |       |        |       |
|                      | [33]                             | [34]     | [35]   | [36]   | [37]    | [38]   | [39]    | [40]   | [41]  | [42]   | [43]  |
| 1962                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1963                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1964                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1965                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1966                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1967                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1968                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1969                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1970                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1971                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1972                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1973                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1974                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1975                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1976                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1977                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1978                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1979                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1980                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1981                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1982                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1983                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1984                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1985                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1986                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1987                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1988                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 1,550  | 0     |
| 1989                 | 0                                | 12,647   | 1,898  | 0      | 0       | 0      | 18,831  | 0      | 0     | 0      | 0     |
| 1990                 | 0                                | 0        | 0      | 1,500  | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1991                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1992                 | 0                                | 0        | 0      | 0      | 10,823  | 0      | 0       | 0      | 0     | 0      | 0     |
| 1993                 | 0                                | 0        | 0      | 0      | 27,200  | 0      | 28,200  | 0      | 5,095 | 1,624  | 2,000 |
| 1994                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1995                 | 0                                | 3,500    | 14,446 | 0      | 0       | 0      | 21,776  | 0      | 0     | 0      | 0     |
| 1996                 | 1,125                            | 4,162    | 0      | 0      | 0       | 1,125  | 81,507  | 0      | 0     | 4,000  | 0     |
| 1997                 | 0                                | 0        | 0      | 0      | 0       | 9,080  | 154,940 | 0      | 0     | 3,500  | 0     |
| 1998                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 1999                 | 0                                | 0        | 0      | 1,300  | 0       | 0      | 0       | 21,500 | 0     | 8,000  | 0     |
| 2000                 | 1,517                            | (11,928) | 0      | 0      | 0       | 8,130  | 57,647  | 0      | 0     | 0      | 0     |
| 2001                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 2,457  | 0     |
| 2002                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 3,000  | 0     |
| 2003                 | 0                                | 1,351    | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 3,900  | 0     |
| 2004                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 3,850  | 0     |
| 2005                 | 0                                | 7,000    | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 1,000  | 0     |
| 2006                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2007                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2008                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2009                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2010                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2011                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2012                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2013                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2014                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2015                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2016                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2017                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2018                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2019                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2020                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2021                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2022                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2023                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2024                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2025                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2026                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2027                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2028                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2029                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2030                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2031                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2032                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2033                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2034                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| 2035                 | 0                                | 0        | 0      | 0      | 0       | 0      | 0       | 0      | 0     | 0      | 0     |
| TOTAL                | 2,642                            | 16,732   | 16,344 | 2,800  | 38,023  | 18,335 | 362,901 | 21,500 | 5,095 | 32,881 | 2,000 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 5 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |        |         |        |        |         |         |       |      |        |        |
|----------------------|---------------------------------|--------|---------|--------|--------|---------|---------|-------|------|--------|--------|
|                      | SAN LUIS DIVISION (continued)   |        |         |        |        |         |         |       |      |        |        |
|                      | Reach 6                         |        |         |        |        | Reach 7 |         |       |      |        |        |
|                      | CK                              | KCWA   |         | MWDSC  | TLBWSD | KCWA    |         | CLWA  | DRWD | TLBWSD | MWDSC  |
|                      |                                 | (M&I)  | (AG)    |        |        | (M&I)   | (AG)    |       |      |        |        |
|                      | [44]                            | [45]   | [46]    | [47]   | [48]   | [49]    | [50]    | [51]  | [52] | [53]   | [54]   |
| 1962                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1963                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1964                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1965                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1966                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1967                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1968                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1969                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1970                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1971                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1972                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1973                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1974                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1975                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1976                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1977                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1978                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1979                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1980                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1981                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1982                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1983                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1984                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1985                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1986                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1987                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1988                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1989                 | 0                               | 0      | 8,260   | 0      | 0      | 0       | 5,262   | 0     | 0    | 0      | 0      |
| 1990                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1991                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1992                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 1993                 | 0                               | 0      | 31,200  | 0      | 0      | 18,157  | 10,043  | 0     | 0    | 0      | 0      |
| 1994                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 2,100 | 0    | 0      | 0      |
| 1995                 | 0                               | 0      | 3,932   | 0      | 0      | 10,875  | 20,595  | 0     | 0    | 0      | 0      |
| 1996                 | 0                               | 0      | 0       | 0      | 0      | 3,424   | 69,704  | 0     | 0    | 0      | 0      |
| 1997                 | 0                               | 0      | 0       | 0      | 0      | 27,079  | 32,463  | 0     | 0    | 0      | 0      |
| 1998                 | 0                               | 20,400 | 33,340  | 0      | 3,000  | 3,998   | 62,081  | 0     | 200  | 0      | 0      |
| 1999                 | 0                               | 0      | 33,776  | 11,000 | 23,000 | 7,923   | 19,500  | 0     | 0    | 4,470  | 500    |
| 2000                 | 0                               | 1,457  | 35,847  | 0      | 3,000  | 0       | 20,970  | 1,200 | 0    | 17,519 | 20,000 |
| 2001                 | 0                               | 0      | 0       | 0      | 600    | 0       | 0       | 0     | 0    | 0      | 0      |
| 2002                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 12,067 | 0      |
| 2003                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 15,103 | 0      |
| 2004                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2005                 | 6,954                           | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 4,000  | 0      |
| 2006                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 9,600  | 0      |
| 2007                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2008                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2009                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2010                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2011                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2012                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2013                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2014                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2015                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2016                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2017                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2018                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2019                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2020                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2021                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2022                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2023                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2024                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2025                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2026                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2027                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2028                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2029                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2030                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2031                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2032                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2033                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2034                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| 2035                 | 0                               | 0      | 0       | 0      | 0      | 0       | 0       | 0     | 0    | 0      | 0      |
| TOTAL                | 6,954                           | 21,857 | 146,355 | 11,000 | 29,600 | 71,456  | 240,618 | 3,300 | 200  | 62,759 | 20,500 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 6 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |       |          |       |           |         |         |          |        |           |       |
|----------------------|---------------------------------|-------|----------|-------|-----------|---------|---------|----------|--------|-----------|-------|
|                      | SOUTH SAN JOAQUIN DIVISION      |       |          |       |           |         |         |          |        |           |       |
|                      | Reach 7                         |       | Reach 8C |       |           |         |         | Reach 8D |        |           |       |
|                      | CK                              | KCWA  |          | DRWD  | TLBWSD    | EWSID   | CK      | KCWA     |        | DRWD      | CK    |
|                      |                                 | (M&I) | (AG)     |       |           |         |         | (M&I)    | (AG)   |           |       |
|                      | [55]                            | [56]  | [57]     | [58]  | [59]      | [60]    | [61]    | [62]     | [63]   | [64]      | [65]  |
| 1962                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1963                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1964                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1965                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1966                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1967                 | 0                               | 0     | 0        | 0     | 0         | 0       | 0       | 0        | 0      | 0         | 0     |
| 1968                 | 0                               | 0     | 0        | 0     | 25,100    | 1,978   | 900     | 0        | 0      | 26,360    | 0     |
| 1969                 | 0                               | 0     | 0        | 0     | 7,081     | 56      | 100     | 0        | 0      | 31,375    | 0     |
| 1970                 | 0                               | 0     | 0        | 0     | 0         | 3,942   | 0       | 0        | 0      | 40,407    | 0     |
| 1971                 | 0                               | 0     | 0        | 0     | 80,906    | 5,990   | 3,700   | 0        | 0      | 41,053    | 0     |
| 1972                 | 0                               | 0     | 0        | 0     | 144,843   | 5,795   | 1,400   | 0        | 0      | 42,443    | 0     |
| 1973                 | 0                               | 0     | 0        | 0     | 26,317    | 3,000   | 1,500   | 0        | 1,500  | 22,057    | 0     |
| 1974                 | 0                               | 0     | 0        | 0     | 32,603    | 3,000   | 1,500   | 0        | 0      | 33,390    | 0     |
| 1975                 | 0                               | 0     | 0        | 0     | 41,536    | 3,000   | 1,600   | 0        | 0      | 40,555    | 0     |
| 1976                 | 0                               | 0     | 0        | 0     | 26,595    | 3,000   | 1,600   | 0        | 0      | 41,421    | 0     |
| 1977                 | 0                               | 0     | 0        | 0     | 12,984    | 738     | 1,530   | 0        | 0      | 11,153    | 0     |
| 1978                 | 0                               | 0     | 0        | 0     | 3,934     | 454     | 2,070   | 0        | 0      | 51,747    | 0     |
| 1979                 | 0                               | 0     | 0        | 0     | 74,758    | 1,739   | 2,000   | 0        | 0      | 38,544    | 0     |
| 1980                 | 0                               | 0     | 0        | 0     | 35,140    | 894     | 2,200   | 0        | 0      | 41,000    | 0     |
| 1981                 | 0                               | 0     | 0        | 0     | 50,888    | 5,859   | 2,300   | 0        | 0      | 41,000    | 0     |
| 1982                 | 0                               | 0     | 0        | 0     | 4,405     | 361     | 1,536   | 0        | 0      | 41,000    | 214   |
| 1983                 | 0                               | 0     | 0        | 0     | 1,001     | 0       | 3,550   | 0        | 0      | 42,900    | 0     |
| 1984                 | 0                               | 0     | 0        | 0     | 3,677     | 0       | 3,100   | 0        | 0      | 45,100    | 0     |
| 1985                 | 0                               | 0     | 0        | 0     | 68,638    | 5,197   | 3,400   | 0        | 0      | 46,251    | 0     |
| 1986                 | 0                               | 0     | 0        | 0     | 40,017    | 1,170   | 3,700   | 0        | 0      | 50,249    | 0     |
| 1987                 | 0                               | 0     | 0        | 0     | 30,359    | 2,525   | 4,000   | 0        | 0      | 46,288    | 0     |
| 1988                 | 0                               | 0     | 0        | 0     | 46,281    | 3,475   | 4,000   | 0        | 0      | 47,994    | 0     |
| 1989                 | 0                               | 0     | 0        | 2,391 | 63,703    | 3,000   | 4,000   | 0        | 0      | 52,158    | 0     |
| 1990                 | 0                               | 0     | 0        | 0     | 23,504    | 1,279   | 2,000   | 0        | 161    | 36,296    | 0     |
| 1991                 | 0                               | 0     | 0        | 0     | 1,697     | 221     | 0       | 0        | 0      | 927       | 0     |
| 1992                 | 0                               | 0     | 0        | 280   | 15,982    | 1,354   | 1,806   | 0        | 0      | 12,667    | 0     |
| 1993                 | 0                               | 0     | 0        | 0     | 57,112    | 2,741   | 4,000   | 0        | 0      | 23,221    | 0     |
| 1994                 | 0                               | 0     | 0        | 0     | 21,510    | 1,666   | 2,116   | 0        | 1,726  | 28,793    | 0     |
| 1995                 | 0                               | 989   | 10,527   | 0     | 40,934    | 1,631   | 4,000   | 2,959    | 27,270 | 45,240    | 0     |
| 1996                 | 0                               | 0     | 1,500    | 95    | 84,130    | 1,868   | 4,000   | 0        | 1,455  | 52,722    | 0     |
| 1997                 | 0                               | 0     | 1,500    | 0     | 9,467     | 0       | 0       | 0        | 0      | 57,496    | 0     |
| 1998                 | 0                               | 0     | 1,000    | 90    | 8,956     | 542     | 15      | 0        | 20,000 | 49,435    | 0     |
| 1999                 | 0                               | 0     | 400      | 86    | 90,334    | 3,176   | 4,000   | 0        | 9,000  | 58,290    | 0     |
| 2000                 | 0                               | 0     | 400      | 166   | 63,842    | 1,799   | 3,600   | 0        | 0      | 57,920    | 0     |
| 2001                 | 0                               | 0     | 0        | 14    | 23,300    | 1,360   | 1,560   | 0        | 6,089  | 39,801    | 0     |
| 2002                 | 0                               | 0     | 0        | 0     | 34,009    | 1,405   | 2,854   | 0        | 7,522  | 47,434    | 0     |
| 2003                 | 0                               | 0     | 0        | 0     | 25,317    | 1,436   | 3,692   | 0        | 8,350  | 45,732    | 0     |
| 2004                 | 0                               | 0     | 0        | 0     | 30,546    | 3,562   | 5,803   | 0        | 4,979  | 45,823    | 3,250 |
| 2005                 | 6,904                           | 0     | 0        | 0     | 42,450    | 3,834   | 4,057   | 0        | 0      | 58,627    | 1,891 |
| 2006                 | 0                               | 0     | 0        | 0     | 39,051    | 4,236   | 9,445   | 0        | 0      | 55,098    | 0     |
| 2007                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2008                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2009                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2010                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2011                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2012                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2013                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2014                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2015                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2016                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2017                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2018                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2019                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2020                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2021                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2022                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2023                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2024                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2025                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2026                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2027                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2028                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2029                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2030                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2031                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2032                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2033                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2034                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| 2035                 | 0                               | 0     | 0        | 0     | 38,369    | 3,000   | 9,000   | 0        | 0      | 57,343    | 0     |
| TOTAL                | 6,904                           | 989   | 15,327   | 3,122 | 2,545,608 | 174,283 | 363,634 | 2,959    | 88,052 | 3,252,914 | 5,355 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 7 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)        |        |        |           |         |        |           |        |           |            |
|----------------------|----------------------------------------|--------|--------|-----------|---------|--------|-----------|--------|-----------|------------|
|                      | SOUTH SAN JOAQUIN DIVISION (continued) |        |        |           |         |        |           |        |           |            |
|                      | Reach 8D                               |        |        |           | Reach 9 |        |           |        | Reach 10A |            |
|                      | SBC                                    | SGVMWD | SLOC   | TLBWSD    | DRWD    | KCWA   |           | TLBWSD | KCWA      |            |
|                      | FC&WCD                                 | SGVMWD | FC&WCD | TLBWSD    | DRWD    | (M&I)  | (AG)      | TLBWSD | (M&I)     | (AG)       |
|                      | [66]                                   | [67]   | [68]   | [69]      | [70]    | [71]   | [72]      | [73]   | [74]      | [75]       |
| 1962                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1963                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1964                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1965                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1966                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1967                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 0         | 0      | 0         | 0          |
| 1968                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 30,951    | 0      | 0         | 0          |
| 1969                 | 0                                      | 0      | 0      | 0         | 0       | 0      | 24,489    | 0      | 0         | 0          |
| 1970                 | 0                                      | 0      | 0      | 3,408     | 0       | 0      | 46,114    | 1,855  | 0         | 158        |
| 1971                 | 0                                      | 0      | 0      | 41,579    | 0       | 0      | 58,356    | 0      | 0         | 9,973      |
| 1972                 | 0                                      | 0      | 0      | 113,550   | 0       | 0      | 75,464    | 0      | 0         | 5,876      |
| 1973                 | 0                                      | 0      | 0      | 24,147    | 0       | 0      | 54,583    | 0      | 0         | 22,948     |
| 1974                 | 0                                      | 0      | 0      | 39,686    | 0       | 0      | 63,814    | 0      | 10,019    | 22,719     |
| 1975                 | 0                                      | 0      | 0      | 44,722    | 0       | 0      | 50,021    | 0      | 2,791     | 72,121     |
| 1976                 | 0                                      | 0      | 0      | 32,216    | 0       | 0      | 53,465    | 0      | 74        | 50,444     |
| 1977                 | 0                                      | 0      | 0      | 5,097     | 0       | 0      | 24,668    | 0      | 201       | 34,451     |
| 1978                 | 0                                      | 0      | 0      | 8,119     | 0       | 0      | 72,231    | 0      | 0         | 161,889    |
| 1979                 | 0                                      | 0      | 0      | 80,363    | 0       | 0      | 74,524    | 0      | 285       | 153,245    |
| 1980                 | 0                                      | 0      | 0      | 40,304    | 0       | 0      | 79,946    | 0      | 3,780     | 131,836    |
| 1981                 | 0                                      | 0      | 0      | 32,550    | 0       | 0      | 76,508    | 0      | 341       | 133,500    |
| 1982                 | 0                                      | 0      | 0      | 14,146    | 0       | 0      | 76,877    | 0      | 4,700     | 164,832    |
| 1983                 | 0                                      | 0      | 0      | 5         | 0       | 2,217  | 84,573    | 0      | 0         | 146,493    |
| 1984                 | 0                                      | 0      | 0      | 2,066     | 0       | 4,100  | 85,732    | 0      | 6,910     | 150,302    |
| 1985                 | 0                                      | 0      | 0      | 41,153    | 0       | 0      | 67,696    | 0      | 6,495     | 153,473    |
| 1986                 | 0                                      | 0      | 0      | 39,338    | 0       | 0      | 79,943    | 0      | 5,065     | 198,099    |
| 1987                 | 0                                      | 0      | 0      | 62,725    | 0       | 0      | 97,732    | 0      | 900       | 226,521    |
| 1988                 | 0                                      | 0      | 0      | 48,035    | 0       | 1,100  | 83,858    | 0      | 9,529     | 212,495    |
| 1989                 | 0                                      | 0      | 0      | 63,947    | 0       | 0      | 91,134    | 0      | 21,038    | 251,979    |
| 1990                 | 0                                      | 0      | 0      | 32,066    | 0       | 0      | 83,108    | 0      | 25,189    | 47,472     |
| 1991                 | 0                                      | 0      | 0      | 483       | 0       | 13,683 | 601       | 0      | 1,142     | 6,820      |
| 1992                 | 0                                      | 0      | 0      | 30,746    | 0       | 28     | 40,183    | 0      | 3,685     | 89,390     |
| 1993                 | 0                                      | 0      | 0      | 65,732    | 197     | 5,945  | 53,597    | 0      | 775       | 233,862    |
| 1994                 | 0                                      | 0      | 0      | 40,852    | 0       | 0      | 44,994    | 0      | 5,227     | 126,792    |
| 1995                 | 0                                      | 0      | 0      | 57,435    | 0       | 0      | 64,076    | 0      | 366       | 229,448    |
| 1996                 | 0                                      | 0      | 100    | 148,745   | 0       | 2,236  | 89,291    | 0      | 6,666     | 199,854    |
| 1997                 | 0                                      | 0      | 100    | 9,402     | 4,900   | 0      | 72,013    | 0      | 3,577     | 157,385    |
| 1998                 | 0                                      | 0      | 0      | 8,721     | 0       | 0      | 57,530    | 0      | 2,603     | 163,587    |
| 1999                 | 0                                      | 0      | 0      | 162,631   | 0       | 0      | 72,734    | 0      | 1,657     | 190,787    |
| 2000                 | 0                                      | 0      | 0      | 113,952   | 0       | 2,000  | 71,562    | 0      | 16,880    | 274,000    |
| 2001                 | 0                                      | 0      | 0      | 58,369    | 0       | 0      | 54,198    | 0      | 160       | 97,623     |
| 2002                 | 745                                    | 0      | 0      | 47,426    | 0       | 0      | 60,957    | 0      | 7,645     | 163,998    |
| 2003                 | 0                                      | 0      | 0      | 61,521    | 0       | 0      | 54,724    | 0      | 2,648     | 172,243    |
| 2004                 | 0                                      | 0      | 0      | 55,625    | 0       | 0      | 54,330    | 0      | 65,743    | 122,099    |
| 2005                 | 0                                      | 0      | 0      | 92,552    | 0       | 0      | 53,206    | 0      | 22,087    | 210,657    |
| 2006                 | 0                                      | 0      | 0      | 50,120    | 0       | 0      | 70,365    | 0      | 0         | 272,186    |
| 2007                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 97,971    | 0      | 0         | 210,478    |
| 2008                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 211,678    |
| 2009                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 211,678    |
| 2010                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 211,678    |
| 2011                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2012                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2013                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2014                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2015                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2016                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2017                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2018                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2019                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2020                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2021                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2022                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2023                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2024                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2025                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2026                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2027                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2028                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2029                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2030                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2031                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2032                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2033                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2034                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| 2035                 | 0                                      | 0      | 0      | 57,553    | 0       | 0      | 104,771   | 0      | 0         | 213,678    |
| TOTAL                | 745                                    | 0      | 200    | 3,442,571 | 5,097   | 31,309 | 5,481,707 | 1,855  | 238,178   | 11,249,019 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 8 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)        |              |        |         |         |         |        |           |         |           |       |
|----------------------|----------------------------------------|--------------|--------|---------|---------|---------|--------|-----------|---------|-----------|-------|
|                      | SOUTH SAN JOAQUIN DIVISION (continued) |              |        |         |         |         |        |           |         |           |       |
|                      | Reach 10A                              |              |        |         |         |         |        | Reach 11B |         |           |       |
|                      | DRWD                                   | AC<br>FC&WCD | CLWA   | SCVWD   | ACWD    | MWDSC   | AVEKWA | TLBWSD    | KCWA    |           | DRWD  |
|                      |                                        |              |        |         |         |         |        |           | (M&I)   | (AG)      |       |
|                      | [76]                                   | [77]         | [78]   | [79]    | [80]    | [81]    | [82]   | [83]      | [84]    | [85]      | [86]  |
| 1962                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1963                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1964                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1965                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1966                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1967                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 0         | 0     |
| 1968                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 24,776    | 0     |
| 1969                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 2,842     | 0       | 64,682    | 0     |
| 1970                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 4,315     | 0       | 72,279    | 0     |
| 1971                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 63,773    | 0     |
| 1972                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 72,358    | 0     |
| 1973                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 67,544    | 0     |
| 1974                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 87,476    | 0     |
| 1975                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 85,675    | 0     |
| 1976                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 85,067    | 0     |
| 1977                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 3,981   | 29,603    | 0     |
| 1978                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 0       | 88,753    | 0     |
| 1979                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 484     | 108,379   | 0     |
| 1980                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 3,112   | 103,207   | 0     |
| 1981                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 494     | 104,395   | 0     |
| 1982                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 798     | 99,081    | 0     |
| 1983                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 2,069   | 94,117    | 0     |
| 1984                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 2,349   | 124,819   | 0     |
| 1985                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 10,666  | 118,646   | 0     |
| 1986                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 8,673   | 124,836   | 0     |
| 1987                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 13,074  | 111,877   | 0     |
| 1988                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 13,509  | 114,031   | 0     |
| 1989                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 9,986   | 127,058   | 0     |
| 1990                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 9,319   | 104,107   | 0     |
| 1991                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 6,099   | 118       | 0     |
| 1992                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 7,419   | 35,093    | 0     |
| 1993                 | 0                                      | 0            | 0      | 0       | 0       | 44,496  | 0      | 0         | 2,696   | 72,645    | 0     |
| 1994                 | 0                                      | 0            | 0      | 0       | 0       | 0       | 0      | 0         | 3,506   | 71,202    | 0     |
| 1995                 | 0                                      | 0            | 0      | 0       | 0       | 50,000  | 0      | 0         | 1,154   | 97,072    | 0     |
| 1996                 | 0                                      | 0            | 0      | 45,000  | 6,200   | 95,000  | 0      | 0         | 1,185   | 96,250    | 0     |
| 1997                 | 900                                    | 0            | 0      | 35,000  | 10,000  | 125,000 | 0      | 0         | 1,111   | 104,823   | 0     |
| 1998                 | 0                                      | 1,970        | 0      | 23,800  | 3,780   | 39,500  | 0      | 0         | 1,311   | 72,646    | 0     |
| 1999                 | 0                                      | 22,910       | 0      | 30,000  | 16,100  | 75,850  | 0      | 0         | 2,127   | 92,262    | 0     |
| 2000                 | 0                                      | 23,940       | 0      | 23,730  | 13,380  | 9,208   | 0      | 0         | 3,793   | 89,623    | 1,500 |
| 2001                 | 0                                      | 5,000        | 0      | 0       | 0       | 0       | 0      | 0         | 636     | 73,105    | 0     |
| 2002                 | 0                                      | 14,287       | 24,000 | 3,311   | 2,083   | 0       | 0      | 0         | 1,457   | 91,123    | 0     |
| 2003                 | 0                                      | 6,500        | 0      | 33,000  | 18,800  | 70,940  | 0      | 0         | 1,379   | 87,174    | 0     |
| 2004                 | 0                                      | 5,740        | 32,522 | 0       | 8,000   | 0       | 0      | 0         | 1,299   | 97,722    | 0     |
| 2005                 | 0                                      | 0            | 0      | 55,448  | 28,422  | 31,210  | 0      | 0         | 824     | 93,554    | 0     |
| 2006                 | 0                                      | 197          | 0      | 10,500  | 13,853  | 115,434 | 0      | 0         | 94      | 100,696   | 0     |
| 2007                 | 0                                      | 0            | 0      | 10,500  | 14,400  | 0       | 1,000  | 0         | 1,390   | 101,500   | 0     |
| 2008                 | 0                                      | 5,740        | 0      | 10,500  | 11,400  | 0       | 1,000  | 0         | 1,390   | 101,500   | 0     |
| 2009                 | 0                                      | 5,740        | 0      | 10,500  | 10,600  | 0       | 1,000  | 0         | 1,390   | 101,500   | 0     |
| 2010                 | 0                                      | 5,740        | 0      | 10,500  | 10,600  | 0       | 1,000  | 0         | 1,390   | 101,500   | 0     |
| 2011                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2012                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2013                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2014                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2015                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2016                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2017                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2018                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2019                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2020                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2021                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2022                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2023                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2024                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2025                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2026                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2027                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2028                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2029                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2030                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2031                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2032                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2033                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2034                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| 2035                 | 0                                      | 6,468        | 0      | 0       | 7,500   | 0       | 0      | 0         | 1,390   | 101,500   | 0     |
| TOTAL                | 900                                    | 259,464      | 56,522 | 301,789 | 355,118 | 656,638 | 4,000  | 7,157     | 154,914 | 6,295,147 | 1,500 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 9 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)        |       |           |           |       |        |        |       |        |         |
|----------------------|----------------------------------------|-------|-----------|-----------|-------|--------|--------|-------|--------|---------|
|                      | SOUTH SAN JOAQUIN DIVISION (continued) |       |           |           |       |        |        |       |        |         |
|                      | Reach 12D                              |       | Reach 12E |           |       |        |        |       |        |         |
|                      | KCWA                                   |       | KCWA      |           | ACWD  | AC     | CLWA   | SCVWD | DRWD   | MWDSC   |
|                      | (M&I)                                  | (AG)  | (M&I)     | (AG)      |       |        |        |       |        |         |
|                      | [87]                                   | [88]  | [89]      | [90]      | [91]  | [92]   | [93]   | [94]  | [95]   | [96]    |
| 1962                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1963                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1964                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1965                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1966                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1967                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1968                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1969                 | 0                                      | 0     | 0         | 0         | 0     | 0      | 0      | 0     | 0      | 0       |
| 1970                 | 0                                      | 0     | 0         | 9,279     | 0     | 0      | 0      | 0     | 0      | 0       |
| 1971                 | 0                                      | 0     | 0         | 28,056    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1972                 | 0                                      | 0     | 0         | 62,342    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1973                 | 0                                      | 0     | 0         | 13,082    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1974                 | 0                                      | 0     | 2,651     | 4,248     | 0     | 0      | 0      | 0     | 0      | 0       |
| 1975                 | 0                                      | 0     | 0         | 10,787    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1976                 | 0                                      | 0     | 37,519    | 20,555    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1977                 | 0                                      | 0     | 20,280    | 1,737     | 0     | 0      | 0      | 0     | 0      | 0       |
| 1978                 | 0                                      | 0     | 47,133    | 15,011    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1979                 | 0                                      | 0     | 50,740    | 61,567    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1980                 | 0                                      | 0     | 32,039    | 22,252    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1981                 | 0                                      | 0     | 59,917    | 58,470    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1982                 | 0                                      | 0     | 36,139    | 75,587    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1983                 | 0                                      | 0     | 0         | 10,950    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1984                 | 0                                      | 0     | 63,941    | 39,929    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1985                 | 0                                      | 0     | 69,839    | 84,117    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1986                 | 0                                      | 0     | 62,109    | 51,540    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1987                 | 0                                      | 0     | 95,297    | 86,223    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1988                 | 0                                      | 0     | 86,390    | 123,249   | 0     | 0      | 0      | 0     | 0      | 0       |
| 1989                 | 0                                      | 0     | 83,965    | 146,544   | 0     | 0      | 0      | 0     | 0      | 0       |
| 1990                 | 0                                      | 0     | 82,164    | 38,973    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1991                 | 0                                      | 0     | 8,842     | 303       | 0     | 0      | 0      | 0     | 0      | 0       |
| 1992                 | 0                                      | 0     | 47,181    | 57,048    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1993                 | 0                                      | 0     | 84,822    | 285,554   | 0     | 0      | 0      | 0     | 0      | 5,504   |
| 1994                 | 0                                      | 0     | 66,188    | 77,839    | 0     | 0      | 0      | 0     | 0      | 0       |
| 1995                 | 0                                      | 0     | 107,130   | 181,097   | 0     | 0      | 0      | 0     | 1,000  | 0       |
| 1996                 | 0                                      | 0     | 89,257    | 134,138   | 0     | 0      | 0      | 0     | 4,131  | 0       |
| 1997                 | 0                                      | 0     | 32,061    | 128,329   | 0     | 0      | 0      | 0     | 8,012  | 1,486   |
| 1998                 | 0                                      | 0     | 28,258    | 88,998    | 0     | 0      | 0      | 0     | 5,925  | 24,234  |
| 1999                 | 0                                      | 0     | 110,161   | 255,343   | 0     | 0      | 0      | 0     | 1,321  | 62,162  |
| 2000                 | 21                                     | 0     | 78,285    | 89,702    | 0     | 0      | 0      | 0     | 953    | 159,731 |
| 2001                 | 41                                     | 0     | 5,256     | 46,205    | 0     | 0      | 0      | 0     | 0      | 0       |
| 2002                 | 760                                    | 6     | 39,104    | 96,231    | 0     | 0      | 0      | 0     | 0      | 0       |
| 2003                 | 2,431                                  | 152   | 64,196    | 87,339    | 0     | 0      | 0      | 0     | 0      | 45,989  |
| 2004                 | 3,419                                  | 768   | 52,303    | 95,893    | 0     | 0      | 0      | 0     | 1,600  | 0       |
| 2005                 | 2,841                                  | 644   | 43,835    | 340,281   | 1,878 | 3,419  | 20,000 | 2,619 | 1,154  | 15,384  |
| 2006                 | 5,647                                  | 544   | 65,200    | 249,906   | 0     | 10,000 | 10,550 | 0     | 0      | 115,435 |
| 2007                 | 6,500                                  | 0     | 90,390    | 148,412   | 0     | 10,000 | 0      | 0     | 0      | 0       |
| 2008                 | 6,500                                  | 0     | 90,390    | 148,412   | 0     | 10,000 | 20,000 | 0     | 0      | 0       |
| 2009                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 10,000 | 20,000 | 0     | 0      | 0       |
| 2010                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 10,000 | 20,000 | 0     | 0      | 0       |
| 2011                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2012                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2013                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2014                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2015                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2016                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2017                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2018                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2019                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2020                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2021                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2022                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2023                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2024                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2025                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2026                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2027                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2028                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2029                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2030                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2031                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2032                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2033                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2034                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| 2035                 | 6,500                                  | 0     | 104,600   | 134,202   | 0     | 0      | 0      | 0     | 0      | 0       |
| TOTAL                | 203,660                                | 2,114 | 4,757,182 | 7,098,982 | 1,878 | 53,419 | 90,550 | 2,619 | 24,096 | 429,925 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 10 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)        |           |              |       |        |        |           |        |           |       |           |
|----------------------|----------------------------------------|-----------|--------------|-------|--------|--------|-----------|--------|-----------|-------|-----------|
|                      | SOUTH SAN JOAQUIN DIVISION (continued) |           |              |       |        |        |           |        |           |       |           |
|                      | Reach 13B                              |           |              |       |        |        | Reach 14A |        | Reach 14B |       |           |
|                      | KCWA                                   |           | AC<br>FC&WCD | SCVWD | MWDSC  | DRWD   | TLBWSD    | KCWA   |           | KCWA  |           |
|                      | (M&I)                                  | (AG)      |              |       |        |        |           | (M&I)  | (AG)      | (M&I) | (AG)      |
|                      | [97]                                   | [98]      | [99]         | [100] | [101]  | [102]  | [103]     | [104]  | [105]     | [106] | [107]     |
| 1962                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1963                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1964                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1965                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1966                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1967                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1968                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1969                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 0         |
| 1970                 | 0                                      | 4,891     | 0            | 0     | 0      | 0      | 0         | 0      | 0         | 0     | 3         |
| 1971                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 0      | 23,844    | 0     | 49,929    |
| 1972                 | 0                                      | 17,388    | 0            | 0     | 0      | 0      | 0         | 0      | 26,621    | 0     | 77,034    |
| 1973                 | 0                                      | 9,297     | 0            | 0     | 0      | 0      | 0         | 0      | 15,328    | 0     | 47,040    |
| 1974                 | 8,038                                  | 4,246     | 0            | 0     | 0      | 0      | 0         | 0      | 7,794     | 0     | 32,356    |
| 1975                 | 8,538                                  | 7,059     | 0            | 0     | 0      | 0      | 0         | 0      | 10,306    | 0     | 27,736    |
| 1976                 | 5,626                                  | 8,855     | 0            | 0     | 0      | 0      | 0         | 0      | 268       | 0     | 35,296    |
| 1977                 | 0                                      | 5,024     | 0            | 0     | 0      | 0      | 0         | 0      | 8,299     | 0     | 13,539    |
| 1978                 | 21,773                                 | 7,601     | 0            | 0     | 0      | 0      | 0         | 0      | 34,029    | 0     | 72,351    |
| 1979                 | 5,663                                  | 17,766    | 0            | 0     | 0      | 0      | 0         | 3,012  | 27,356    | 0     | 59,413    |
| 1980                 | 0                                      | 22,515    | 0            | 0     | 0      | 0      | 0         | 4,312  | 16,876    | 0     | 40,513    |
| 1981                 | 7,844                                  | 14,037    | 0            | 0     | 0      | 0      | 0         | 4,511  | 13,007    | 8     | 42,753    |
| 1982                 | 0                                      | 25,553    | 0            | 0     | 0      | 0      | 0         | 3,735  | 24,240    | 184   | 57,739    |
| 1983                 | 0                                      | 3,491     | 0            | 0     | 0      | 0      | 0         | 1,168  | 20,302    | 0     | 57,922    |
| 1984                 | 12,117                                 | 26,178    | 0            | 0     | 0      | 0      | 0         | 137    | 35,369    | 10    | 79,179    |
| 1985                 | 0                                      | 67,711    | 0            | 0     | 0      | 0      | 0         | 206    | 33,103    | 0     | 72,855    |
| 1986                 | 0                                      | 66,551    | 0            | 0     | 0      | 0      | 0         | 180    | 26,384    | 0     | 70,864    |
| 1987                 | 5,609                                  | 40,374    | 0            | 0     | 0      | 0      | 0         | 610    | 30,098    | 9     | 67,710    |
| 1988                 | 9,298                                  | 47,167    | 0            | 0     | 0      | 0      | 0         | 622    | 32,778    | 19    | 75,968    |
| 1989                 | 5,504                                  | 57,114    | 0            | 0     | 0      | 0      | 0         | 721    | 29,292    | 7     | 82,201    |
| 1990                 | 7,645                                  | 20,423    | 0            | 0     | 0      | 0      | 0         | 673    | 26,800    | 13    | 81,076    |
| 1991                 | 0                                      | 0         | 0            | 0     | 0      | 0      | 0         | 768    | 0         | 0     | 0         |
| 1992                 | 789                                    | 17,449    | 0            | 0     | 0      | 0      | 0         | 673    | 16,238    | 464   | 41,143    |
| 1993                 | 12,798                                 | 88,157    | 0            | 0     | 0      | 0      | 0         | 629    | 17,832    | 0     | 62,493    |
| 1994                 | 2,494                                  | 33,148    | 0            | 0     | 0      | 0      | 0         | 2,513  | 16,760    | 3,000 | 54,011    |
| 1995                 | 8,751                                  | 110,685   | 0            | 0     | 0      | 0      | 3,500     | 3      | 21,234    | 0     | 67,391    |
| 1996                 | 28,063                                 | 64,849    | 0            | 0     | 0      | 0      | 0         | 0      | 26,978    | 0     | 85,936    |
| 1997                 | 43,803                                 | 49,312    | 0            | 0     | 0      | 0      | 0         | 0      | 23,035    | 0     | 79,790    |
| 1998                 | 29,444                                 | 40,085    | 0            | 0     | 5,500  | 0      | 0         | 0      | 15,706    | 0     | 58,132    |
| 1999                 | 12,969                                 | 92,998    | 0            | 0     | 0      | 0      | 0         | 0      | 21,153    | 0     | 67,576    |
| 2000                 | 4,066                                  | 98,136    | 0            | 0     | 0      | 0      | 0         | 0      | 19,264    | 0     | 70,585    |
| 2001                 | 4,044                                  | 29,881    | 0            | 0     | 0      | 1,733  | 0         | 1      | 12,451    | 0     | 49,602    |
| 2002                 | 15,951                                 | 55,493    | 0            | 0     | 0      | 736    | 0         | 0      | 11,161    | 0     | 52,762    |
| 2003                 | 35,239                                 | 91,739    | 0            | 0     | 1,865  | 350    | 0         | 0      | 13,685    | 0     | 44,576    |
| 2004                 | 1,922                                  | 73,801    | 0            | 0     | 0      | 1,657  | 0         | 0      | 13,030    | 0     | 52,012    |
| 2005                 | 21,781                                 | 269,631   | 2,321        | 9,014 | 192    | 14,540 | 0         | 0      | 15,663    | 0     | 56,739    |
| 2006                 | 30,297                                 | 142,006   | 0            | 0     | 10,500 | 3,554  | 0         | 0      | 10,352    | 0     | 48,570    |
| 2007                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2008                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,820    | 0     | 56,200    |
| 2009                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,820    | 0     | 56,200    |
| 2010                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,820    | 0     | 56,200    |
| 2011                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2012                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2013                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2014                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2015                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2016                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2017                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2018                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2019                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2020                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2021                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2022                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2023                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2024                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2025                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2026                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2027                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2028                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2029                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2030                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2031                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2032                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2033                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2034                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| 2035                 | 18,500                                 | 48,050    | 0            | 0     | 0      | 0      | 0         | 0      | 16,400    | 0     | 55,500    |
| TOTAL                | 886,566                                | 3,124,061 | 2,321        | 9,014 | 18,057 | 22,570 | 3,500     | 24,474 | 1,173,496 | 3,714 | 3,646,395 |



**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 11 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |           |        |           |           |           |           |        |                 |          |           |
|----------------------|---------------------------------|-----------|--------|-----------|-----------|-----------|-----------|--------|-----------------|----------|-----------|
|                      | SOUTH SAN JOAQUIN DIVISION      |           |        |           |           |           |           |        | MOJAVE DIVISION |          |           |
|                      | Reach 14C                       |           |        | Reach 15A |           | Reach 16A |           |        | Reach 18A       | Reach 19 |           |
|                      | KCWA                            |           | MWDSC  | KCWA      |           | KCWA      |           | AVEKWA | AVEKWA          | MWA      | AVEKWA    |
|                      | (M&I)                           | (AG)      |        | (M&I)     | (AG)      | (M&I)     | (AG)      |        |                 |          |           |
|                      | [108]                           | [109]     | [110]  | [111]     | [112]     | [113]     | [114]     | [115]  | [116]           | [117]    | [118]     |
| 1962                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1963                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1964                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1965                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1966                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1967                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1968                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1969                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1970                 | 0                               | 0         | 0      | 0         | 0         | 0         | 0         | 0      | 0               | 0        | 0         |
| 1971                 | 0                               | 24,187    | 0      | 0         | 3,552     | 0         | 0         | 0      | 0               | 0        | 0         |
| 1972                 | 0                               | 35,016    | 0      | 0         | 6,064     | 0         | 4,768     | 0      | 0               | 0        | 0         |
| 1973                 | 0                               | 19,043    | 0      | 0         | 19,916    | 0         | 1,961     | 0      | 0               | 0        | 0         |
| 1974                 | 0                               | 12,601    | 0      | 0         | 18,000    | 3,000     | 1,564     | 0      | 0               | 0        | 1,223     |
| 1975                 | 0                               | 12,783    | 0      | 0         | 35,420    | 3,200     | 9,867     | 0      | 0               | 0        | 7,622     |
| 1976                 | 0                               | 9,005     | 0      | 0         | 39,551    | 3,500     | 11,667    | 0      | 3,808           | 0        | 23,063    |
| 1977                 | 0                               | 3,757     | 0      | 0         | 6,158     | 3,420     | 685       | 0      | 1,231           | 0        | 8,927     |
| 1978                 | 0                               | 24,542    | 0      | 0         | 31,148    | 7,989     | 1,655     | 0      | 1,321           | 0        | 36,333    |
| 1979                 | 0                               | 22,372    | 0      | 0         | 38,602    | 2,813     | 15,808    | 0      | 2,098           | 0        | 49,910    |
| 1980                 | 0                               | 19,953    | 0      | 0         | 37,817    | 2,700     | 16,145    | 0      | 2,610           | 0        | 61,534    |
| 1981                 | 7                               | 18,729    | 0      | 0         | 39,033    | 2,636     | 18,156    | 0      | 2,340           | 0        | 65,690    |
| 1982                 | 0                               | 26,479    | 0      | 0         | 47,782    | 1,921     | 16,577    | 0      | 1,669           | 0        | 41,127    |
| 1983                 | 0                               | 26,613    | 0      | 0         | 37,426    | 1,400     | 17,907    | 0      | 43              | 0        | 26,377    |
| 1984                 | 2                               | 34,996    | 0      | 0         | 49,848    | 1,338     | 24,246    | 0      | 90              | 0        | 22,462    |
| 1985                 | 0                               | 31,758    | 0      | 0         | 44,078    | 1,309     | 16,820    | 0      | 8               | 0        | 23,440    |
| 1986                 | 0                               | 34,566    | 0      | 0         | 42,461    | 1,213     | 15,559    | 0      | 8               | 0        | 16,898    |
| 1987                 | 10                              | 31,019    | 0      | 0         | 34,748    | 1,665     | 10,170    | 0      | 0               | 0        | 15,958    |
| 1988                 | 1                               | 37,165    | 0      | 16        | 41,978    | 1,925     | 8,987     | 0      | 0               | 0        | 13,471    |
| 1989                 | 5                               | 37,800    | 0      | 2         | 43,239    | 2,668     | 8,649     | 0      | 0               | 0        | 18,007    |
| 1990                 | 9                               | 34,174    | 0      | 6         | 36,347    | 2,819     | 8,608     | 0      | 0               | 0        | 17,281    |
| 1991                 | 0                               | 0         | 0      | 0         | 0         | 2,588     | 343       | 2,000  | 0               | 0        | 728       |
| 1992                 | 0                               | 18,084    | 0      | 0         | 24,243    | 2,087     | 8,275     | 0      | 0               | 0        | 7,238     |
| 1993                 | 0                               | 28,103    | 0      | 0         | 27,997    | 2,494     | 9,167     | 0      | 0               | 0        | 13,340    |
| 1994                 | 1,000                           | 22,624    | 0      | 0         | 29,511    | 3,011     | 13,877    | 0      | 0               | 0        | 19,122    |
| 1995                 | 0                               | 31,285    | 0      | 0         | 26,134    | 3,188     | 15,042    | 0      | 0               | 0        | 20,222    |
| 1996                 | 0                               | 38,879    | 0      | 0         | 36,186    | 2,573     | 18,142    | 0      | 0               | 0        | 23,919    |
| 1997                 | 0                               | 33,512    | 0      | 0         | 36,281    | 3,997     | 17,048    | 0      | 0               | 64       | 28,834    |
| 1998                 | 0                               | 23,097    | 0      | 0         | 28,712    | 3,751     | 17,032    | 0      | 0               | 1,345    | 22,466    |
| 1999                 | 0                               | 31,489    | 0      | 0         | 36,801    | 3,316     | 24,071    | 0      | 0               | 1,439    | 30,944    |
| 2000                 | 0                               | 33,716    | 0      | 0         | 40,063    | 3,015     | 20,919    | 0      | 0               | 1,361    | 34,786    |
| 2001                 | 0                               | 23,557    | 0      | 0         | 31,192    | 1,894     | 13,476    | 0      | 0               | 1,385    | 24,370    |
| 2002                 | 0                               | 27,138    | 0      | 0         | 41,552    | 4,227     | 14,520    | 0      | 0               | 1,370    | 14,297    |
| 2003                 | 0                               | 24,783    | 12,911 | 0         | 36,602    | 1,168     | 16,799    | 0      | 0               | 1,285    | 12,145    |
| 2004                 | 0                               | 30,313    | 0      | 0         | 40,184    | 2,239     | 19,714    | 0      | 0               | 1,223    | 11,201    |
| 2005                 | 27                              | 21,952    | 0      | 0         | 39,870    | 167       | 18,353    | 0      | 11              | 1,051    | 11,804    |
| 2006                 | 0                               | 23,313    | 0      | 0         | 46,555    | 2,825     | 17,808    | 0      | 45              | 1,346    | 26,517    |
| 2007                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,235    | 10,646    |
| 2008                 | 0                               | 27,680    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 81,666    |
| 2009                 | 0                               | 27,680    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,657    | 95,048    |
| 2010                 | 0                               | 27,680    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,235    | 93,688    |
| 2011                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2012                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2013                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2014                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2015                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2016                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2017                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2018                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2019                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2020                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2021                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2022                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2023                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2024                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2025                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2026                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2027                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2028                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2029                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2030                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2031                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2032                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2033                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2034                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| 2035                 | 0                               | 26,800    | 0      | 0         | 48,300    | 3,610     | 19,500    | 0      | 0               | 1,500    | 38,329    |
| TOTAL                | 1,061                           | 1,688,243 | 12,911 | 24        | 2,575,751 | 192,746   | 1,019,885 | 2,000  | 15,282          | 54,996   | 1,990,529 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 12 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |       |           |           |        |          |       |        |           |       |           |
|----------------------|---------------------------------|-------|-----------|-----------|--------|----------|-------|--------|-----------|-------|-----------|
|                      | MOJAVE DIVISION (continued)     |       |           |           |        |          |       |        |           |       |           |
|                      | Reach 20A                       |       |           | Reach 20B |        | Reach 21 |       |        | Reach 22A |       | Reach 22B |
|                      | PWD                             | MWA   | AVEKWA    | PWD       | AVEKWA | LCID     | PWD   | AVEKWA | AVEKWA    | LCID  | MWDSC(d)  |
|                      | [119]                           | [120] | [121]     | [122]     | [123]  | [124]    | [125] | [126]  | [127]     | [128] | [129]     |
| 1962                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1963                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1964                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1965                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1966                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1967                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1968                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1969                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1970                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1971                 | 0                               | 0     | 0         | 0         | 0      | 0        | 0     | 0      | 0         | 0     | 0         |
| 1972                 | 0                               | 0     | 0         | 0         | 0      | 338      | 0     | 0      | 0         | 0     | 0         |
| 1973                 | 0                               | 0     | 0         | 0         | 0      | 290      | 0     | 0      | 0         | 0     | (14,800)  |
| 1974                 | 0                               | 0     | 0         | 0         | 0      | 400      | 0     | 0      | 0         | 0     | (16,400)  |
| 1975                 | 0                               | 0     | 420       | 0         | 0      | 520      | 0     | 0      | 0         | 0     | (18,000)  |
| 1976                 | 0                               | 0     | 471       | 0         | 416    | 589      | 0     | 0      | 0         | 0     | (19,600)  |
| 1977                 | 0                               | 0     | 773       | 0         | 271    | 111      | 0     | 0      | 0         | 0     | 0         |
| 1978                 | 0                               | 0     | 5,549     | 0         | 934    | 208      | 0     | 0      | 0         | 0     | (25,384)  |
| 1979                 | 0                               | 0     | 7,555     | 0         | 930    | 133      | 0     | 0      | 0         | 0     | (25,063)  |
| 1980                 | 0                               | 0     | 7,605     | 0         | 655    | 191      | 0     | 0      | 3         | 0     | (27,884)  |
| 1981                 | 0                               | 0     | 10,333    | 0         | 966    | 1,270    | 0     | 0      | 46        | 0     | (31,105)  |
| 1982                 | 0                               | 0     | 7,313     | 0         | 8      | 0        | 0     | 0      | 174       | 0     | (34,326)  |
| 1983                 | 0                               | 0     | 6,253     | 0         | 20     | 38       | 0     | 0      | 268       | 0     | (37,547)  |
| 1984                 | 0                               | 0     | 9,558     | 0         | 2      | 1        | 0     | 0      | 550       | 0     | (40,768)  |
| 1985                 | 1,510                           | 0     | 11,613    | 32        | 217    | 0        | 16    | 0      | 1,786     | 0     | (43,989)  |
| 1986                 | 3,041                           | 0     | 13,808    | 45        | 0      | 163      | 10    | 0      | 1,735     | 0     | (47,210)  |
| 1987                 | 2,389                           | 0     | 15,493    | 1,624     | 151    | 1,080    | 1,366 | 0      | 2,273     | 5     | (50,931)  |
| 1988                 | 366                             | 0     | 17,117    | 1,261     | 281    | 419      | 143   | 0      | 3,210     | 0     | (54,652)  |
| 1989                 | 381                             | 0     | 23,481    | 7,848     | 112    | 971      | 780   | 0      | 3,591     | 0     | (58,373)  |
| 1990                 | 282                             | 0     | 25,843    | 8,292     | 84     | 1,747    | 34    | 0      | 3,988     | 0     | (61,200)  |
| 1991                 | 84                              | 1,391 | 4,282     | 3,830     | 131    | 522      | 0     | 0      | 2,427     | 0     | (18,360)  |
| 1992                 | 185                             | 1,310 | 18,518    | 3,850     | 650    | 251      | 0     | 0      | 3,859     | 0     | (27,624)  |
| 1993                 | 164                             | 1,514 | 23,662    | 7,597     | 996    | 734      | 0     | 0      | 5,098     | 0     | 0         |
| 1994                 | 299                             | 1,399 | 25,250    | 8,119     | 124    | 1,098    | 0     | 0      | 4,657     | 0     | 0         |
| 1995                 | 328                             | 1,227 | 22,385    | 6,633     | 0      | 480      | 0     | 0      | 4,679     | 0     | 0         |
| 1996                 | 354                             | 1,316 | 26,979    | 11,080    | 0      | 494      | 0     | 0      | 5,458     | 0     | 0         |
| 1997                 | 313                             | 1,272 | 27,999    | 11,548    | 0      | 444      | 0     | 0      | 5,549     | 0     | 0         |
| 1998                 | 195                             | 0     | 25,985    | 8,557     | 0      | 404      | 0     | 0      | 4,468     | 0     | 0         |
| 1999                 | 377                             | 0     | 32,409    | 12,901    | 36     | 342      | 0     | 0      | 5,684     | 0     | 0         |
| 2000                 | 0                               | 0     | 37,819    | 9,060     | 80     | 0        | 0     | 5,002  | 5,890     | 0     | 0         |
| 2001                 | 0                               | 0     | 33,216    | 10,427    | 282    | 0        | 0     | 0      | 4,989     | 0     | 0         |
| 2002                 | 0                               | 0     | 36,311    | 18,496    | 1,662  | 0        | 0     | 0      | 5,404     | 0     | 0         |
| 2003                 | 0                               | 0     | 39,532    | 11,547    | 2,289  | 0        | 0     | 0      | 6,063     | 0     | 0         |
| 2004                 | 0                               | 0     | 40,408    | 12,139    | 1,774  | 0        | 23    | 0      | 6,095     | 0     | 0         |
| 2005                 | 0                               | 0     | 41,496    | 11,678    | 1,336  | 0        | 34    | 0      | 5,184     | 0     | 5,942     |
| 2006                 | 222                             | 0     | 41,674    | 18,062    | 1,608  | 800      | 0     | 0      | 4,617     | 0     | 0         |
| 2007                 | 0                               | 0     | 36,805    | 21,300    | 1,454  | 2,300    | 0     | 0      | 4,491     | 0     | 0         |
| 2008                 | 0                               | 0     | 37,906    | 21,300    | 1,498  | 2,300    | 0     | 0      | 4,625     | 0     | 0         |
| 2009                 | 0                               | 0     | 39,043    | 21,300    | 1,544  | 2,300    | 0     | 0      | 4,765     | 0     | 0         |
| 2010                 | 0                               | 0     | 40,216    | 21,300    | 1,588  | 2,300    | 0     | 0      | 4,908     | 0     | 0         |
| 2011                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2012                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2013                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2014                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2015                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2016                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2017                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2018                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2019                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2020                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2021                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2022                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2023                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2024                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2025                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2026                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2027                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2028                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2029                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2030                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2031                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2032                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2033                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2034                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| 2035                 | 0                               | 0     | 88,822    | 21,300    | 1,569  | 2,300    | 0     | 0      | 12,680    | 0     | 0         |
| TOTAL                | 10,490                          | 9,429 | 3,015,630 | 802,326   | 61,324 | 80,738   | 2,406 | 5,002  | 433,534   | 5     | (647,274) |

d) In accordance with the Exchange Agreement between the noted agencies, MWDSC assumed responsibility for payment of variable OMP&R costs on the exchange water in reaches beyond Reach 22B, and Desert Water Agency and Coachella Valley Water District for such costs from the Delta through Reach 22B.  
The adjustment in deliveries in Reach 22B provides for compliance with provisions for the repayment of costs under the agreement.  
In 1993 and after the exchange takes place in Reach 26A.

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 13 of 16

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |           |         |         |           |          |          |        |          |               |           |
|------------------|---------------------------------|-----------|---------|---------|-----------|----------|----------|--------|----------|---------------|-----------|
|                  | MOJAVE DIVISION (continued)     |           |         |         |           |          |          |        |          | SANTA ANA DIV |           |
|                  | Reach 22B                       |           |         |         |           | Reach 23 | Reach 24 |        |          | Reach 26A     |           |
|                  | SCWA                            | MWA       | CVWD(e) | DWA(e)  | AVEKWA(f) | MWA      | CLAWA    | MWA    | MWDSC(e) | MWDSC(e)      | SBVMWD(g) |
|                  | [130]                           | [131]     | [132]   | [133]   | [134]     | [135]    | [136]    | [137]  | [138]    | [139]         | [140]     |
| 1962             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1963             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1964             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1965             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1966             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1967             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1968             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1969             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1970             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1971             | 0                               | 0         | 0       | 0       | 0         | 0        | 0        | 0      | 0        | 0             | 0         |
| 1972             | 0                               | 55        | 0       | 0       | 0         | 0        | 464      | 0      | 0        | 0             | 1,275     |
| 1973             | 0                               | 0         | 5,800   | 9,000   | 0         | 0        | 389      | 0      | 0        | 444           | 32,426    |
| 1974             | 0                               | 0         | 6,400   | 10,000  | 0         | 14       | 627      | 0      | 0        | 84,981        | 16,605    |
| 1975             | 0                               | 0         | 7,000   | 11,000  | 0         | 0        | 825      | 0      | 0        | 169,960       | 13,865    |
| 1976             | 0                               | 0         | 7,600   | 12,000  | 0         | 0        | 1,002    | 0      | 0        | 215,312       | 12,273    |
| 1977             | 0                               | 22        | 0       | 0       | 0         | 58       | 1,109    | 0      | 0        | 64,823        | 24,833    |
| 1978             | 0                               | 0         | 10,084  | 15,300  | 0         | 0        | 1,209    | 0      | 0        | 297,708       | 4,055     |
| 1979             | 0                               | 4,000     | 10,063  | 15,000  | 0         | 0        | 1,260    | 0      | 0        | 260,903       | 18        |
| 1980             | 0                               | 4,000     | 10,884  | 17,000  | 0         | 0        | 1,239    | 0      | 0        | 300,345       | 0         |
| 1981             | 0                               | 4,000     | 12,105  | 19,000  | 0         | 0        | 1,485    | 0      | 0        | 395,678       | 16,021    |
| 1982             | 0                               | 10,500    | 13,326  | 21,000  | 0         | 0        | 1,238    | 0      | 0        | 214,566       | 8,409     |
| 1983             | 0                               | 0         | 14,547  | 23,000  | 0         | 0        | 911      | 0      | 0        | 175,288       | 5,994     |
| 1984             | 0                               | 0         | 15,768  | 25,000  | 0         | 0        | 1,128    | 0      | 0        | 122,311       | 5,556     |
| 1985             | 0                               | 0         | 16,989  | 27,000  | 0         | 0        | 1,422    | 0      | 0        | 147,599       | 7,390     |
| 1986             | 0                               | 0         | 18,210  | 29,000  | 0         | 0        | 1,506    | 0      | 0        | 215,265       | 6,421     |
| 1987             | 0                               | 17        | 19,431  | 31,500  | 214       | 0        | 1,849    | 0      | 0        | 175,012       | 18,751    |
| 1988             | 0                               | 9         | 20,652  | 34,000  | 0         | 0        | 2,006    | 0      | 0        | 247,101       | 21,386    |
| 1989             | 0                               | 0         | 21,873  | 36,500  | 89        | 200      | 2,170    | 0      | 0        | 326,217       | 20,782    |
| 1990             | 0                               | 0         | 23,100  | 38,100  | 10        | 0        | 1,827    | 0      | 0        | 399,387       | 18,831    |
| 1991             | 0                               | 0         | 6,930   | 11,430  | 0         | 0        | 849      | 2,032  | 0        | 107,182       | 3,661     |
| 1992             | 0                               | 42        | 10,427  | 17,197  | 0         | 0        | 519      | 9,334  | 0        | 219,524       | 3,358     |
| 1993             | 0                               | 0         | 0       | 0       | 0         | 0        | 439      | 10,000 | 0        | 98,291        | 4,361     |
| 1994             | 0                               | 14,634    | 0       | 0       | 0         | 0        | 785      | 819    | 0        | 192,979       | 9,135     |
| 1995             | 0                               | 7,495     | 0       | 0       | 0         | 0        | 409      | 0      | 0        | 107,299       | 696       |
| 1996             | 0                               | 6,111     | 0       | 0       | 0         | 0        | 485      | 0      | 0        | 73,438        | 6,064     |
| 1997             | 0                               | 9,038     | 0       | 0       | 0         | 0        | 651      | 0      | 0        | 157,215       | 9,654     |
| 1998             | 0                               | 2,580     | 0       | 0       | 0         | 0        | 187      | 0      | 0        | 36,770        | 1,878     |
| 1999             | 0                               | 6,705     | 0       | 0       | 0         | 0        | 1,132    | 0      | 0        | 139,752       | 12,874    |
| 2000             | 0                               | 10,019    | 0       | 0       | 0         | 0        | 1,194    | 0      | 0        | 326,647       | 18,399    |
| 2001             | 0                               | 3,048     | 0       | 0       | 0         | 0        | 1,057    | 0      | 0        | 284,007       | 26,488    |
| 2002             | 0                               | 2,976     | 0       | 0       | 497       | 0        | 2,189    | 0      | 0        | 303,127       | 63,468    |
| 2003             | 0                               | 13,150    | 0       | 0       | 0         | 0        | 1,563    | 0      | 17,249   | 532,198       | 27,415    |
| 2004             | 0                               | 11,953    | 0       | 0       | 253       | 0        | 2,006    | 0      | 0        | 548,654       | 56,150    |
| 2005             | 0                               | 12,169    | 0       | 0       | 0         | 0        | 205      | 341    | 14,058   | 361,976       | 18,835    |
| 2006             | 0                               | 38,072    | 0       | 0       | 0         | 0        | 2,900    | 0      | 0        | 509,933       | 75,002    |
| 2007             | 0                               | 17,220    | 0       | 0       | 0         | 0        | 3,340    | 0      | 0        | 535,737       | 72,600    |
| 2008             | 0                               | 64,985    | 0       | 0       | 0         | 0        | 5,920    | 0      | 0        | 21,593        | 102,600   |
| 2009             | 0                               | 74,143    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 21,593        | 102,600   |
| 2010             | 0                               | 74,565    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 21,593        | 102,600   |
| 2011             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2012             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2013             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2014             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2015             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2016             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2017             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2018             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2019             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2020             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2021             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2022             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2023             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2024             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2025             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2026             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2027             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2028             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2029             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2030             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2031             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2032             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2033             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2034             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| 2035             | 0                               | 74,300    | 0       | 0       | 0         | 0        | 5,800    | 0      | 0        | 535,737       | 102,600   |
| TOTAL            | 0                               | 2,249,008 | 251,189 | 402,027 | 1,063     | 272      | 206,096  | 22,526 | 31,307   | 21,805,833    | 3,517,729 |

e) In accordance with the Exchange Agreement between the noted agencies, MWDSC assumed responsibility for payment of variable OMP&R costs on the exchange water in reaches beyond Reach 22B, and Desert Water Agency and Coachella Valley Water District for such costs from the Delta through Reach 22B. The adjustment in deliveries in Reach 22B provides for compliance with provisions for the repayment of costs under the agreement. In 1993 and after the exchange takes place in Reach 26A.

f) 1988 advance allocation.

g) Includes 1,650 AF recaptured from ground water storage in 1982, 10,000 AF in 1987, and 8,749 AF in 1988. This water was stored under DWR's Ground Water Demonstration Program.

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 14 of 16

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |         |           |           |           |           |       |           |           |       |           |
|------------------|---------------------------------|---------|-----------|-----------|-----------|-----------|-------|-----------|-----------|-------|-----------|
|                  | SANTA ANA DIVISION (continued)  |         |           |           |           |           |       |           |           |       |           |
|                  | Reach 26A                       |         |           |           | Reach 28G | Reach 28H |       |           | Reach 28J |       |           |
|                  | SGVMWD                          | SGPWA   | CVWD(e)   | DWA(e)    | MWDSC     | CVWD      | DWA   | MWDSC     | CVWD      | DWA   | MWDSC     |
|                  | [141]                           | [142]   | [143]     | [144]     | [145]     | [146]     | [147] | [148]     | [149]     | [150] | [151]     |
| 1962             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1963             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1964             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1965             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1966             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1967             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1968             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1969             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1970             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1971             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1972             | 0                               | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1973             | 0                               | 0       | 0         | 0         | 18,942    | 0         | 0     | 0         | 0         | 0     | 0         |
| 1974             | 612                             | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 0         |
| 1975             | 5,450                           | 0       | 0         | 0         | 0         | 0         | 0     | 0         | 0         | 0     | 251       |
| 1976             | 6,071                           | 0       | 0         | 0         | 0         | 0         | 0     | 55        | 0         | 0     | 2,000     |
| 1977             | 8,996                           | 0       | 0         | 0         | 0         | 0         | 0     | 43        | 0         | 0     | 2,442     |
| 1978             | 7,771                           | 0       | 0         | 0         | 0         | 0         | 0     | 48        | 0         | 0     | 64,054    |
| 1979             | 290                             | 0       | 0         | 0         | 0         | 0         | 0     | 1,290     | 0         | 0     | 94,353    |
| 1980             | 1,085                           | 0       | 0         | 0         | 0         | 0         | 0     | 3,013     | 0         | 0     | 91,532    |
| 1981             | 3,619                           | 0       | 0         | 0         | 0         | 0         | 0     | 4,365     | 0         | 0     | 149,405   |
| 1982             | 12,599                          | 0       | 0         | 0         | 0         | 0         | 0     | 3,961     | 0         | 0     | 155,629   |
| 1983             | 734                             | 0       | 0         | 0         | 0         | 0         | 0     | 6,645     | 0         | 0     | 41,616    |
| 1984             | 7,656                           | 0       | 0         | 0         | 0         | 0         | 0     | 109,743   | 0         | 0     | 5,672     |
| 1985             | 5,028                           | 0       | 0         | 0         | 0         | 0         | 0     | 182,781   | 0         | 0     | 6,538     |
| 1986             | 9,454                           | 0       | 0         | 0         | 0         | 0         | 0     | 131,439   | 0         | 0     | 30,071    |
| 1987             | 10,630                          | 0       | 0         | 0         | 0         | 0         | 0     | 144,743   | 0         | 0     | 26,315    |
| 1988             | 8,948                           | 0       | 0         | 0         | 0         | 0         | 0     | 199,641   | 0         | 0     | 22,209    |
| 1989             | 12,839                          | 0       | 0         | 0         | 0         | 0         | 0     | 247,430   | 0         | 0     | 51,462    |
| 1990             | 16,649                          | 0       | 0         | 0         | 0         | 0         | 0     | 257,796   | 0         | 0     | 36,060    |
| 1991             | 5,399                           | 0       | 0         | 0         | 0         | 0         | 0     | 38,832    | 0         | 0     | 5,958     |
| 1992             | 7,908                           | 0       | 0         | 0         | 0         | 0         | 0     | 85,341    | 0         | 0     | 12,223    |
| 1993             | 14,397                          | 0       | 23,100    | 38,100    | 0         | 0         | 0     | 61,841    | 0         | 0     | 4,588     |
| 1994             | 15,230                          | 0       | 14,102    | 23,257    | 0         | 0         | 0     | 134,262   | 0         | 0     | 4,725     |
| 1995             | 12,922                          | 0       | 23,100    | 38,100    | 0         | 0         | 0     | 117,762   | 0         | 0     | 21,099    |
| 1996             | 15,989                          | 0       | 62,219    | 102,622   | 0         | 0         | 0     | 144,906   | 0         | 0     | 12,418    |
| 1997             | 18,175                          | 0       | 58,100    | 53,100    | 0         | 0         | 0     | 107,853   | 0         | 0     | 47,777    |
| 1998             | 9,310                           | 0       | 78,100    | 58,100    | 0         | 6,582     | 7,708 | 77,473    | 1,027     | 4,839 | 50,411    |
| 1999             | 21,729                          | 0       | 50,480    | 58,100    | 0         | 0         | 0     | 206,689   | 0         | 0     | 8,163     |
| 2000             | 15,140                          | 0       | 42,323    | 58,234    | 0         | 0         | 0     | 379,713   | 0         | 0     | 7,864     |
| 2001             | 2,360                           | 0       | 9,100     | 15,010    | 0         | 0         | 0     | 260,984   | 0         | 0     | 33,414    |
| 2002             | 24,851                          | 0       | 16,755    | 27,640    | 0         | 0         | 0     | 340,635   | 0         | 0     | 41,552    |
| 2003             | 21,934                          | 116     | 14,443    | 23,819    | 0         | 0         | 0     | 246,485   | 0         | 0     | 50,776    |
| 2004             | 12,541                          | 841     | 15,465    | 21,190    | 0         | 0         | 0     | 357,995   | 0         | 0     | 20,437    |
| 2005             | 13,984                          | 692     | 34,356    | 49,089    | 0         | 0         | 0     | 242,245   | 0         | 0     | 114,499   |
| 2006             | 15,160                          | 2,690   | 60,550    | 25,000    | 0         | 0         | 0     | 154,125   | 0         | 0     | 323,562   |
| 2007             | 12,000                          | 7,500   | 104,600   | 30,950    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2008             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 136,378   | 0         | 0     | 279,350   |
| 2009             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 136,378   | 0         | 0     | 279,350   |
| 2010             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 136,378   | 0         | 0     | 279,350   |
| 2011             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2012             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2013             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2014             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2015             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2016             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2017             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2018             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2019             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2020             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2021             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2022             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2023             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2024             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2025             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2026             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2027             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2028             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2029             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2030             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2031             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2032             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2033             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2034             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| 2035             | 28,800                          | 17,300  | 121,100   | 50,000    | 0         | 0         | 0     | 124,048   | 0         | 0     | 224,480   |
| TOTAL            | 1,163,860                       | 496,239 | 3,997,593 | 2,022,311 | 18,942    | 6,582     | 7,708 | 7,884,516 | 1,027     | 4,839 | 8,213,605 |

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

(in acre-feet)

Sheet 15 of 16

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |           |          |        |            |         |           |           |           |                |       |
|----------------------|---------------------------------|-----------|----------|--------|------------|---------|-----------|-----------|-----------|----------------|-------|
|                      | WEST BRANCH                     |           |          |        |            |         |           |           |           | COASTAL BRANCH |       |
|                      | Reach 29F                       | Reach 29H | Reach 30 |        |            |         |           |           |           | Reach 31A      |       |
|                      | AVEKWA                          | VCFCF     | CVWD     | DWA    | MWDSC(h)   | VCFCF   | SBVMWD(g) | CLWA      | SBCFC&WCD | DRWD           | CK    |
|                      | [152]                           | [153]     | [154]    | [155]  | [156]      | [157]   | [158]     | [159]     | [160]     | [161]          | [162] |
| 1962                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1963                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1964                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1965                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1966                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1967                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1968                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1969                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1970                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1971                 | 0                               | 0         | 0        | 0      | 0          | 0       | 0         | 0         | 0         | 0              | 0     |
| 1972                 | 53                              | 0         | 0        | 0      | 71,938     | 0       | 0         | 0         | 0         | 0              | 0     |
| 1973                 | 20                              | 0         | 0        | 0      | 155,297    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1974                 | 36                              | 0         | 0        | 0      | 209,136    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1975                 | 26                              | 0         | 0        | 0      | 374,280    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1976                 | 24                              | 0         | 0        | 0      | 420,684    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1977                 | 0                               | 0         | 0        | 0      | 122,447    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1978                 | 0                               | 0         | 0        | 0      | 171,139    | 0       | 0         | 0         | 0         | 0              | 0     |
| 1979                 | 0                               | 0         | 0        | 0      | 145,591    | 0       | 0         | 7         | 0         | 0              | 0     |
| 1980                 | 0                               | 0         | 0        | 0      | 164,721    | 0       | 0         | 1,210     | 0         | 0              | 0     |
| 1981                 | 0                               | 0         | 0        | 0      | 277,503    | 0       | 0         | 5,761     | 0         | 0              | 0     |
| 1982                 | 0                               | 0         | 0        | 0      | 351,362    | 0       | 0         | 9,516     | 0         | 0              | 0     |
| 1983                 | 0                               | 0         | 0        | 0      | 157,519    | 0       | 0         | 9,476     | 0         | 0              | 0     |
| 1984                 | 0                               | 0         | 0        | 0      | 260,624    | 0       | 0         | 11,477    | 0         | 0              | 0     |
| 1985                 | 0                               | 0         | 0        | 0      | 390,696    | 0       | 0         | 12,401    | 0         | 0              | 0     |
| 1986                 | 0                               | 0         | 0        | 0      | 379,275    | 0       | 0         | 13,928    | 0         | 0              | 0     |
| 1987                 | 0                               | 0         | 0        | 0      | 417,285    | 0       | 0         | 16,167    | 0         | 0              | 0     |
| 1988                 | 0                               | 0         | 0        | 0      | 488,265    | 0       | 0         | 18,904    | 0         | 0              | 0     |
| 1989                 | 0                               | 0         | 0        | 0      | 589,962    | 0       | 0         | 21,719    | 0         | 0              | 0     |
| 1990                 | 0                               | 4,836     | 0        | 0      | 764,380    | 0       | 0         | 22,139    | 0         | 0              | 0     |
| 1991                 | 0                               | 988       | 0        | 0      | 257,835    | 0       | 0         | 3,846     | 1,240     | 0              | 0     |
| 1992                 | 0                               | 0         | 0        | 0      | 420,849    | 0       | 0         | 14,812    | 0         | 0              | 0     |
| 1993                 | 6                               | 0         | 0        | 0      | 437,470    | 0       | 0         | 13,787    | 0         | 0              | 0     |
| 1994                 | 0                               | 0         | 0        | 0      | 475,900    | 0       | 0         | 14,919    | 0         | 0              | 0     |
| 1995                 | 0                               | 0         | 0        | 0      | 139,882    | 0       | 0         | 17,747    | 0         | 0              | 0     |
| 1996                 | 0                               | 0         | 0        | 0      | 267,618    | 0       | 0         | 18,448    | 0         | 0              | 0     |
| 1997                 | 11                              | 0         | 10,240   | 16,890 | 271,379    | 1,850   | 0         | 22,842    | 0         | 0              | 0     |
| 1998                 | 7                               | 0         | 0        | 0      | 187,277    | 1,850   | 0         | 19,782    | 0         | 0              | 0     |
| 1999                 | 0                               | 0         | 0        | 0      | 327,001    | 1,850   | 0         | 28,813    | 0         | 0              | 0     |
| 2000                 | 0                               | 2,200     | 0        | 0      | 632,991    | 1,850   | 0         | 31,085    | 0         | 0              | 0     |
| 2001                 | 0                               | 0         | 0        | 0      | 444,764    | 1,850   | 0         | 30,701    | 0         | 0              | 0     |
| 2002                 | 0                               | 3,148     | 0        | 0      | 723,605    | 1,850   | 8,601     | 42,080    | 0         | 0              | 0     |
| 2003                 | 0                               | 3,150     | 0        | 0      | 678,964    | 1,850   | 0         | 51,735    | 0         | 0              | 0     |
| 2004                 | 0                               | 4,047     | 0        | 0      | 797,294    | 1,203   | 0         | 47,463    | 0         | 0              | 0     |
| 2005                 | 0                               | 0         | 0        | 0      | 538,839    | 1,665   | 0         | 36,747    | 0         | 4,684          | 0     |
| 2006                 | 0                               | 0         | 0        | 0      | 755,908    | 5,000   | 0         | 42,877    | 0         | 0              | 305   |
| 2007                 | 0                               | 3,150     | 0        | 0      | 827,235    | 16,850  | 0         | 50,000    | 0         | 0              | 305   |
| 2008                 | 0                               | 3,150     | 0        | 0      | 926,068    | 16,850  | 0         | 69,200    | 0         | 0              | 305   |
| 2009                 | 0                               | 3,150     | 0        | 0      | 926,068    | 16,850  | 0         | 69,200    | 0         | 0              | 305   |
| 2010                 | 0                               | 3,150     | 0        | 0      | 926,068    | 16,850  | 0         | 69,200    | 0         | 0              | 305   |
| 2011                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 89,177    | 0         | 0              | 305   |
| 2012                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2013                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2014                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2015                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2016                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2017                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2018                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2019                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2020                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2021                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2022                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2023                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2024                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2025                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2026                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2027                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2028                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2029                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2030                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2031                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2032                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2033                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2034                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| 2035                 | 0                               | 3,150     | 0        | 0      | 1,027,235  | 16,850  | 0         | 95,200    | 0         | 0              | 305   |
| TOTAL                | 183                             | 109,719   | 10,240   | 16,890 | 42,555,994 | 509,468 | 8,601     | 3,211,966 | 1,240     | 4,684          | 9,150 |

h) Deliveries exclude 6,171 AF of 1982 exchange water.

**TABLE B-5A. Annual Water Quantities Delivered from  
Each Aqueduct Reach to Each Contractor**

| (in acre-feet)       |                                 |           |         |       |            |            |           |             |                    | Sheet 16 of 16 |
|----------------------|---------------------------------|-----------|---------|-------|------------|------------|-----------|-------------|--------------------|----------------|
| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |           |         |       |            |            |           |             | GRAND<br><br>TOTAL |                |
|                      | COASTAL BRANCH                  |           |         |       |            |            |           | TOTAL       |                    |                |
|                      | Reach 31A                       |           |         |       | Reach 34   | Reach 35   |           |             |                    |                |
|                      | KCWA (M&I)                      | KCWA (AG) | CLWA    | MWDSC | SLOCFC&WCD | SLOCFC&WCD | SBCFC&WCD |             |                    |                |
|                      | [163]                           | [164]     | [165]   | [166] | [167]      | [168]      | [169]     | [170]       | [171]              |                |
| 1962                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 8,906              |                |
| 1963                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 12,645             |                |
| 1964                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 20,911             |                |
| 1965                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 34,026             |                |
| 1966                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 54,913             |                |
| 1967                 | 0                               | 0         | 0       | 0     | 0          | 0          | 0         | 0           | 56,763             |                |
| 1968                 | 0                               | 71,657    | 7,382   | 0     | 0          | 0          | 0         | 192,188     | 294,457            |                |
| 1969                 | 0                               | 52,094    | 9,970   | 0     | 0          | 0          | 0         | 195,705     | 268,104            |                |
| 1970                 | 0                               | 71,910    | 11,739  | 0     | 0          | 0          | 0         | 276,211     | 369,459            |                |
| 1971                 | 0                               | 98,481    | 12,490  | 0     | 0          | 0          | 0         | 553,081     | 654,250            |                |
| 1972                 | 0                               | 107,850   | 13,905  | 0     | 0          | 0          | 0         | 895,006     | 1,037,584          |                |
| 1973                 | 0                               | 69,227    | 9,418   | 0     | 0          | 0          | 0         | 638,930     | 737,479            |                |
| 1974                 | 0                               | 68,474    | 9,700   | 0     | 0          | 0          | 0         | 783,984     | 878,820            |                |
| 1975                 | 0                               | 74,516    | 10,700  | 0     | 0          | 0          | 0         | 1,129,728   | 1,230,577          |                |
| 1976                 | 0                               | 78,358    | 11,700  | 0     | 0          | 0          | 0         | 1,245,662   | 1,379,597          |                |
| 1977                 | 0                               | 35,504    | 5,075   | 0     | 0          | 0          | 0         | 465,442     | 581,675            |                |
| 1978                 | 0                               | 81,242    | 11,362  | 0     | 0          | 0          | 0         | 1,339,268   | 1,458,154          |                |
| 1979                 | 0                               | 104,017   | 19,138  | 0     | 0          | 0          | 0         | 1,537,075   | 1,666,155          |                |
| 1980                 | 0                               | 97,497    | 13,882  | 0     | 0          | 0          | 0         | 1,413,363   | 1,536,189          |                |
| 1981                 | 0                               | 97,054    | 12,700  | 0     | 0          | 0          | 0         | 1,779,479   | 1,918,342          |                |
| 1982                 | 0                               | 83,076    | 12,700  | 0     | 0          | 0          | 0         | 1,641,571   | 1,750,528          |                |
| 1983                 | 0                               | 87,859    | 12,659  | 0     | 0          | 0          | 0         | 1,089,626   | 1,186,831          |                |
| 1984                 | 0                               | 119,098   | 12,741  | 0     | 0          | 0          | 0         | 1,489,814   | 1,591,131          |                |
| 1985                 | 0                               | 110,124   | 12,099  | 0     | 0          | 0          | 0         | 1,863,544   | 1,989,925          |                |
| 1986                 | 0                               | 118,298   | 13,301  | 0     | 0          | 0          | 0         | 1,882,290   | 1,998,514          |                |
| 1987                 | 0                               | 116,259   | 11,821  | 0     | 0          | 0          | 0         | 1,984,570   | 2,131,061          |                |
| 1988                 | 0                               | 109,435   | 11,534  | 0     | 0          | 0          | 0         | 2,221,538   | 2,384,434          |                |
| 1989                 | 0                               | 102,156   | 14,645  | 0     | 0          | 0          | 0         | 2,686,838   | 2,853,044          |                |
| 1990                 | 0                               | 103,362   | 6,440   | 0     | 0          | 0          | 0         | 2,398,121   | 2,581,277          |                |
| 1991                 | 0                               | 780       | 716     | 0     | 0          | 0          | 0         | 489,489     | 548,520            |                |
| 1992                 | 0                               | 73,748    | 5,887   | 0     | 0          | 0          | 0         | 1,374,775   | 1,470,695          |                |
| 1993                 | 0                               | 90,764    | 4,157   | 0     | 0          | 0          | 0         | 2,173,352   | 2,314,233          |                |
| 1994                 | 200                             | 77,536    | 9,422   | 0     | 0          | 0          | 0         | 1,727,504   | 1,860,612          |                |
| 1995                 | 0                               | 85,050    | 9,486   | 0     | 0          | 0          | 0         | 1,926,835   | 2,030,310          |                |
| 1996                 | 0                               | 100,578   | 14,052  | 0     | 0          | 0          | 0         | 2,429,928   | 2,542,395          |                |
| 1997                 | 0                               | 97,020    | 4,870   | 0     | 1,099      | 0          | 7,439     | 2,263,966   | 2,404,254          |                |
| 1998                 | 0                               | 86,879    | 311     | 0     | 3,592      | 0          | 18,618    | 1,657,381   | 1,763,382          |                |
| 1999                 | 0                               | 92,095    | 4,086   | 0     | 0          | 3,743      | 20,137    | 2,755,025   | 2,895,579          |                |
| 2000                 | 0                               | 87,554    | 8,395   | 5,662 | 0          | 3,962      | 22,741    | 3,360,734   | 3,538,240          |                |
| 2001                 | 0                               | 63,448    | 1,238   | 0     | 0          | 4,283      | 18,946    | 2,033,444   | 2,172,710          |                |
| 2002                 | 0                               | 65,055    | 2,737   | 0     | 0          | 4,355      | 27,636    | 2,742,315   | 2,911,327          |                |
| 2003                 | 0                               | 65,691    | 4,001   | 0     | 0          | 4,453      | 26,968    | 3,138,285   | 3,312,596          |                |
| 2004                 | 0                               | 66,498    | 3,776   | 0     | 4,165      | 0          | 29,705    | 3,054,577   | 3,231,641          |                |
| 2005                 | 0                               | 68,190    | 2,709   | 0     | 0          | 4,251      | 23,344    | 3,422,451   | 3,576,075          |                |
| 2006                 | 0                               | 78,771    | 5,089   | 0     | 0          | 25,528     | 34,664    | 3,801,777   | 4,002,135          |                |
| 2007                 | 0                               | 90,629    | 6,000   | 0     | 0          | 4,824      | 45,486    | 3,390,204   | 3,581,955          |                |
| 2008                 | 0                               | 90,629    | 6,000   | 0     | 0          | 25,000     | 45,486    | 3,329,268   | 3,574,322          |                |
| 2009                 | 0                               | 90,629    | 6,000   | 0     | 0          | 25,000     | 45,486    | 3,352,368   | 3,581,165          |                |
| 2010                 | 0                               | 90,629    | 6,000   | 0     | 0          | 25,000     | 45,486    | 3,352,368   | 3,581,610          |                |
| 2011                 | 0                               | 90,629    | 6,023   | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,130,176          |                |
| 2012                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,130,631          |                |
| 2013                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,131,046          |                |
| 2014                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,131,561          |                |
| 2015                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,132,386          |                |
| 2016                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,133,111          |                |
| 2017                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,133,736          |                |
| 2018                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,134,361          |                |
| 2019                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,134,986          |                |
| 2020                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,586          |                |
| 2021                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2022                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2023                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2024                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2025                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2026                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2027                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2028                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2029                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2030                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2031                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2032                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2033                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2034                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| 2035                 | 0                               | 90,629    | 0       | 0     | 0          | 25,000     | 45,486    | 3,847,604   | 4,135,686          |                |
| TOTAL                | 200                             | 5,887,442 | 378,056 | 5662  | 8,856      | 755,399    | 1,549,292 | 177,669,180 | 190,922,377        |                |

**TABLE B-5B. Annual Water Quantities Delivered to Each Contractor**

(in acre-feet)

Sheet 1 of 4

| Calendar<br><br>Year | NORTH BAY AREA                        |                        |           | SOUTH BAY AREA <sup>b</sup>            |                                        |                                            |            | CENTRAL COASTAL AREA         |                                      |           |
|----------------------|---------------------------------------|------------------------|-----------|----------------------------------------|----------------------------------------|--------------------------------------------|------------|------------------------------|--------------------------------------|-----------|
|                      | Napa <sup>a</sup><br>County<br>FC&WCD | Solano<br>County<br>WA | Total     | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total      | San Luis<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total     |
|                      | [1]                                   | [2]                    | [3]       | [4]                                    | [5]                                    | [6]                                        | [7]        | [8]                          | [9]                                  | [10]      |
| 1962                 | 0                                     | 0                      | 0         | 494                                    | 8,412                                  | 0                                          | 8,906      | 0                            | 0                                    | 0         |
| 1963                 | 0                                     | 0                      | 0         | 1,731                                  | 10,914                                 | 0                                          | 12,645     | 0                            | 0                                    | 0         |
| 1964                 | 0                                     | 0                      | 0         | 1,673                                  | 19,238                                 | 0                                          | 20,911     | 0                            | 0                                    | 0         |
| 1965                 | 0                                     | 0                      | 0         | 2,605                                  | 16,407                                 | 15,014                                     | 34,026     | 0                            | 0                                    | 0         |
| 1966                 | 0                                     | 0                      | 0         | 5,511                                  | 14,864                                 | 34,538                                     | 54,913     | 0                            | 0                                    | 0         |
| 1967                 | 0                                     | 0                      | 0         | 4,780                                  | 12,882                                 | 39,101                                     | 56,763     | 0                            | 0                                    | 0         |
| 1968                 | 1,214                                 | 0                      | 1,214     | 6,133                                  | 24,817                                 | 70,105                                     | 101,055    | 0                            | 0                                    | 0         |
| 1969                 | 2,687                                 | 0                      | 2,687     | 6,635                                  | 813                                    | 62,264                                     | 69,712     | 0                            | 0                                    | 0         |
| 1970                 | 3,618                                 | 0                      | 3,618     | 9,249                                  | 0                                      | 80,311                                     | 89,560     | 0                            | 0                                    | 0         |
| 1971                 | 2,521                                 | 0                      | 2,521     | 5,017                                  | 5,961                                  | 87,606                                     | 98,584     | 0                            | 0                                    | 0         |
| 1972                 | 3,647                                 | 0                      | 3,647     | 10,489                                 | 27,671                                 | 100,266                                    | 138,426    | 0                            | 0                                    | 0         |
| 1973                 | 3,792                                 | 0                      | 3,792     | 2,975                                  | 2,521                                  | 88,582                                     | 94,078     | 0                            | 0                                    | 0         |
| 1974                 | 4,870                                 | 0                      | 4,870     | 1,314                                  | 4                                      | 88,000                                     | 89,318     | 0                            | 0                                    | 0         |
| 1975                 | 6,840                                 | 0                      | 6,840     | 4,618                                  | 986                                    | 88,000                                     | 93,604     | 0                            | 0                                    | 0         |
| 1976                 | 7,122                                 | 0                      | 7,122     | 17,131                                 | 21,300                                 | 88,000                                     | 126,431    | 0                            | 0                                    | 0         |
| 1977                 | 8,226                                 | 0                      | 8,226     | 12,644                                 | 18,840                                 | 76,220                                     | 107,704    | 0                            | 0                                    | 0         |
| 1978                 | 6,034                                 | 0                      | 6,034     | 10,984                                 | 5,863                                  | 95,727                                     | 112,574    | 0                            | 0                                    | 0         |
| 1979                 | 6,561                                 | 0                      | 6,561     | 19,325                                 | 10,874                                 | 91,991                                     | 122,190    | 0                            | 0                                    | 0         |
| 1980                 | 6,707                                 | 0                      | 6,707     | 16,790                                 | 11,034                                 | 88,000                                     | 115,824    | 0                            | 0                                    | 0         |
| 1981                 | 9,001                                 | 0                      | 9,001     | 19,590                                 | 21,917                                 | 88,000                                     | 129,507    | 0                            | 0                                    | 0         |
| 1982                 | 1,213                                 | 0                      | 1,213     | 13,123                                 | 6,316                                  | 88,000                                     | 107,439    | 0                            | 0                                    | 0         |
| 1983                 | 2,287                                 | 0                      | 2,287     | 4,766                                  | 3,157                                  | 86,733                                     | 94,656     | 0                            | 0                                    | 0         |
| 1984                 | 2,923                                 | 0                      | 2,923     | 6,784                                  | 3,338                                  | 88,000                                     | 98,122     | 0                            | 0                                    | 0         |
| 1985                 | 4,039                                 | 0                      | 4,039     | 15,072                                 | 19,016                                 | 88,000                                     | 122,088    | 0                            | 0                                    | 0         |
| 1986                 | 3,519                                 | 1,400                  | 4,919     | 10,609                                 | 12,379                                 | 88,000                                     | 110,988    | 0                            | 0                                    | 0         |
| 1987                 | 7,693                                 | 1,550                  | 9,243     | 23,406                                 | 25,390                                 | 88,000                                     | 136,796    | 0                            | 0                                    | 0         |
| 1988                 | 5,392                                 | 9,726                  | 15,118    | 25,830                                 | 33,464                                 | 87,961                                     | 147,255    | 0                            | 0                                    | 0         |
| 1989                 | 6,195                                 | 17,256                 | 23,451    | 26,227                                 | 26,042                                 | 90,000                                     | 142,269    | 0                            | 0                                    | 0         |
| 1990                 | 6,940                                 | 19,131                 | 26,071    | 33,034                                 | 31,703                                 | 92,000                                     | 156,737    | 0                            | 0                                    | 0         |
| 1991                 | 1,380                                 | 6,972                  | 8,352     | 9,411                                  | 12,648                                 | 28,200                                     | 50,259     | 0                            | 1,240                                | 1,240     |
| 1992                 | 4,001                                 | 14,773                 | 18,774    | 14,669                                 | 19,153                                 | 42,839                                     | 76,661     | 0                            | 0                                    | 0         |
| 1993                 | 5,286                                 | 29,180                 | 34,466    | 33,635                                 | 10,271                                 | 62,065                                     | 105,971    | 0                            | 0                                    | 0         |
| 1994                 | 6,792                                 | 25,256                 | 32,048    | 20,542                                 | 22,911                                 | 57,115                                     | 100,568    | 0                            | 0                                    | 0         |
| 1995                 | 5,182                                 | 21,345                 | 26,527    | 30,091                                 | 17,793                                 | 28,756                                     | 76,640     | 0                            | 0                                    | 0         |
| 1996                 | 4,893                                 | 29,999                 | 34,892    | 18,903                                 | 19,662                                 | 89,850                                     | 128,415    | 100                          | 0                                    | 100       |
| 1997                 | 4,341                                 | 33,530                 | 37,871    | 27,522                                 | 24,063                                 | 95,601                                     | 147,186    | 1,199                        | 7,439                                | 8,638     |
| 1998                 | 5,359                                 | 29,766                 | 35,125    | 17,941                                 | 19,075                                 | 63,410                                     | 100,426    | 3,592                        | 18,618                               | 22,210    |
| 1999                 | 5,304                                 | 34,753                 | 40,057    | 48,910                                 | 37,652                                 | 82,945                                     | 169,507    | 3,743                        | 20,137                               | 23,880    |
| 2000                 | 4,958                                 | 37,015                 | 41,973    | 58,617                                 | 35,978                                 | 101,988                                    | 196,583    | 3,962                        | 22,741                               | 26,703    |
| 2001                 | 9,345                                 | 34,586                 | 43,931    | 34,409                                 | 18,004                                 | 77,922                                     | 130,335    | 4,283                        | 18,946                               | 23,229    |
| 2002                 | 6,875                                 | 38,560                 | 45,435    | 53,261                                 | 27,811                                 | 62,186                                     | 143,258    | 4,355                        | 28,381                               | 32,736    |
| 2003                 | 7,646                                 | 33,951                 | 41,597    | 45,450                                 | 36,590                                 | 108,981                                    | 191,021    | 4,453                        | 26,968                               | 31,421    |
| 2004                 | 8,134                                 | 43,002                 | 51,136    | 52,364                                 | 27,884                                 | 59,458                                     | 139,706    | 4,165                        | 29,705                               | 33,870    |
| 2005                 | 7,669                                 | 37,819                 | 45,488    | 47,512                                 | 44,599                                 | 128,249                                    | 220,360    | 4,251                        | 23,344                               | 27,595    |
| 2006                 | 15,708                                | 48,116                 | 63,824    | 57,095                                 | 42,664                                 | 71,108                                     | 170,867    | 25,528                       | 34,664                               | 60,192    |
| 2007                 | 17,000                                | 40,845                 | 57,845    | 64,259                                 | 42,000                                 | 92,000                                     | 198,259    | 4,824                        | 45,486                               | 50,310    |
| 2008                 | 24,975                                | 64,523                 | 89,498    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2009                 | 23,525                                | 47,456                 | 70,981    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2010                 | 23,850                                | 47,506                 | 71,356    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2011                 | 24,175                                | 47,556                 | 71,731    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2012                 | 24,500                                | 47,606                 | 72,106    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2013                 | 24,775                                | 47,656                 | 72,431    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2014                 | 25,150                                | 47,706                 | 72,856    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2015                 | 25,825                                | 47,756                 | 73,581    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2016                 | 26,450                                | 47,756                 | 74,206    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2017                 | 27,075                                | 47,756                 | 74,831    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2018                 | 27,700                                | 47,756                 | 75,456    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2019                 | 28,325                                | 47,756                 | 76,081    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2020                 | 28,925                                | 47,756                 | 76,681    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2021                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2022                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2023                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2024                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2025                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2026                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2027                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2028                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2029                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2030                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2031                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2032                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2033                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2034                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| 2035                 | 29,025                                | 47,756                 | 76,781    | 80,619                                 | 42,000                                 | 100,000                                    | 222,619    | 25,000                       | 45,486                               | 70,486    |
| TOTAL                | 1,003,539                             | 1,941,416              | 2,944,955 | 3,210,462                              | 2,030,881                              | 6,131,092                                  | 11,372,435 | 764,455                      | 1,551,277                            | 2,315,732 |

a) Non-Project water deliveries were pumped through an interim facility from 1968 through 1987.

b) Non-Project water deliveries were supplied from June 1962 through November 1967.

**TABLE B-5B. Annual Water Quantities Delivered to Each Contractor**

(in acre-feet)

Sheet 2 of 4

| Calendar<br><br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                |              |            |                       |                               |                                                   |            |
|----------------------|--------------------------------------|-----------------------------------------------|--------------------------------|--------------|------------|-----------------------|-------------------------------|---------------------------------------------------|------------|
|                      | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Kern County Water Agency       |              |            | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total      |
|                      |                                      |                                               | Municipal<br>and<br>Industrial | Agricultural | Total      |                       |                               |                                                   |            |
|                      | [11]                                 | [12]                                          | [13]                           | [14]         | [15]       | [16]                  | [17]                          | [18]                                              | [19]       |
| 1962                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1963                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1964                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1965                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1966                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1967                 | 0                                    | 0                                             | 0                              | 0            | 0          | 0                     | 0                             | 0                                                 | 0          |
| 1968                 | 26,360                               | 1,978                                         | 0                              | 127,384      | 127,384    | 900                   | 3,084                         | 25,100                                            | 184,806    |
| 1969                 | 31,375                               | 56                                            | 0                              | 141,265      | 141,265    | 100                   | 3,016                         | 9,923                                             | 185,735    |
| 1970                 | 40,407                               | 3,942                                         | 0                              | 204,634      | 204,634    | 0                     | 5,911                         | 9,578                                             | 264,472    |
| 1971                 | 41,053                               | 5,990                                         | 0                              | 360,151      | 360,151    | 3,700                 | 7,212                         | 122,485                                           | 540,591    |
| 1972                 | 42,443                               | 5,795                                         | 0                              | 490,781      | 490,781    | 1,400                 | 8,166                         | 258,393                                           | 806,978    |
| 1973                 | 22,057                               | 3,000                                         | 0                              | 341,469      | 341,469    | 1,500                 | 3,214                         | 50,464                                            | 421,704    |
| 1974                 | 33,390                               | 3,000                                         | 23,708                         | 323,292      | 347,000    | 1,500                 | 3,471                         | 72,289                                            | 460,650    |
| 1975                 | 40,555                               | 3,000                                         | 14,529                         | 396,291      | 410,820    | 1,600                 | 3,576                         | 86,258                                            | 545,809    |
| 1976                 | 41,421                               | 3,000                                         | 46,719                         | 392,531      | 439,250    | 1,600                 | 4,112                         | 58,811                                            | 548,194    |
| 1977                 | 11,153                               | 738                                           | 27,882                         | 163,425      | 191,307    | 1,530                 | 1,472                         | 18,081                                            | 224,281    |
| 1978                 | 51,747                               | 454                                           | 76,895                         | 590,452      | 667,347    | 2,070                 | 3,906                         | 12,053                                            | 737,577    |
| 1979                 | 38,544                               | 1,739                                         | 62,997                         | 683,049      | 746,046    | 2,000                 | 6,149                         | 155,121                                           | 949,599    |
| 1980                 | 41,000                               | 894                                           | 45,943                         | 588,557      | 634,500    | 2,200                 | 5,700                         | 75,444                                            | 759,738    |
| 1981                 | 41,000                               | 5,859                                         | 75,758                         | 615,642      | 691,400    | 2,300                 | 4,300                         | 83,438                                            | 828,297    |
| 1982                 | 41,000                               | 361                                           | 47,477                         | 697,823      | 745,300    | 1,750                 | 3,838                         | 18,551                                            | 810,800    |
| 1983                 | 42,900                               | 0                                             | 6,854                          | 587,653      | 594,507    | 3,550                 | 3,822                         | 1,006                                             | 645,785    |
| 1984                 | 45,100                               | 0                                             | 90,904                         | 769,696      | 860,600    | 3,100                 | 5,700                         | 5,743                                             | 920,243    |
| 1985                 | 46,251                               | 5,197                                         | 88,515                         | 800,381      | 888,896    | 3,400                 | 5,433                         | 109,791                                           | 1,058,968  |
| 1986                 | 50,249                               | 1,170                                         | 77,240                         | 829,101      | 906,341    | 3,700                 | 5,107                         | 79,355                                            | 1,045,922  |
| 1987                 | 46,288                               | 2,525                                         | 117,174                        | 852,731      | 969,905    | 4,000                 | 5,625                         | 93,084                                            | 1,121,427  |
| 1988                 | 47,994                               | 3,475                                         | 122,409                        | 887,111      | 1,009,520  | 4,000                 | 4,412                         | 95,866                                            | 1,165,267  |
| 1989                 | 57,049                               | 3,000                                         | 123,896                        | 1,022,166    | 1,146,062  | 4,000                 | 6,091                         | 127,950                                           | 1,344,152  |
| 1990                 | 36,296                               | 1,279                                         | 127,837                        | 584,611      | 712,448    | 2,000                 | 2,922                         | 57,070                                            | 812,015    |
| 1991                 | 927                                  | 221                                           | 33,122                         | 8,965        | 42,087     | 0                     | 141                           | 2,180                                             | 45,556     |
| 1992                 | 23,770                               | 1,354                                         | 62,326                         | 420,894      | 483,220    | 1,806                 | 2,239                         | 46,728                                            | 559,117    |
| 1993                 | 50,618                               | 2,741                                         | 128,316                        | 1,039,614    | 1,167,930  | 4,000                 | 4,858                         | 124,468                                           | 1,354,615  |
| 1994                 | 28,793                               | 1,666                                         | 87,139                         | 570,020      | 657,159    | 2,116                 | 3,071                         | 62,362                                            | 755,167    |
| 1995                 | 60,686                               | 1,631                                         | 135,415                        | 1,016,114    | 1,151,529  | 4,000                 | 5,169                         | 101,869                                           | 1,324,884  |
| 1996                 | 56,948                               | 1,868                                         | 135,654                        | 1,049,409    | 1,185,063  | 4,000                 | 4,904                         | 236,875                                           | 1,489,658  |
| 1997                 | 71,308                               | 0                                             | 120,708                        | 987,451      | 1,108,159  | 0                     | 5,238                         | 22,369                                            | 1,207,074  |
| 1998                 | 55,650                               | 542                                           | 89,765                         | 768,825      | 858,590    | 15                    | 4,401                         | 20,677                                            | 939,875    |
| 1999                 | 59,697                               | 3,176                                         | 138,153                        | 1,039,985    | 1,178,138  | 4,000                 | 4,871                         | 289,735                                           | 1,539,617  |
| 2000                 | 60,539                               | 1,799                                         | 122,484                        | 1,055,885    | 1,178,369  | 3,600                 | 4,508                         | 198,313                                           | 1,447,128  |
| 2001                 | 41,548                               | 1,360                                         | 21,460                         | 632,279      | 653,739    | 1,560                 | 3,592                         | 84,726                                            | 786,525    |
| 2002                 | 48,170                               | 1,405                                         | 90,967                         | 737,864      | 828,831    | 2,854                 | 4,885                         | 96,502                                            | 982,647    |
| 2003                 | 46,082                               | 1,436                                         | 107,978                        | 856,252      | 964,230    | 3,692                 | 4,266                         | 105,841                                           | 1,125,547  |
| 2004                 | 49,080                               | 3,562                                         | 127,711                        | 716,220      | 843,931    | 9,053                 | 4,629                         | 90,021                                            | 1,000,276  |
| 2005                 | 79,005                               | 3,834                                         | 92,608                         | 1,305,452    | 1,398,060  | 19,806                | 4,194                         | 140,002                                           | 1,644,901  |
| 2006                 | 58,652                               | 4,236                                         | 104,135                        | 1,063,832    | 1,167,967  | 9,750                 | 4,928                         | 98,771                                            | 1,344,304  |
| 2007                 | 57,343                               | 3,000                                         | 120,390                        | 868,340      | 988,730    | 9,305                 | 5,700                         | 95,922                                            | 1,160,000  |
| 2008                 | 57,343                               | 3,000                                         | 120,390                        | 878,340      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2009                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2010                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2011                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2012                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2013                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2014                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2015                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2016                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2017                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2018                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2019                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2020                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2021                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2022                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2023                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2024                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2025                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2026                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2027                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2028                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2029                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2030                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2031                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2032                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2033                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2034                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| 2035                 | 57,343                               | 3,000                                         | 134,600                        | 864,130      | 998,730    | 9,305                 | 5,700                         | 95,922                                            | 1,170,000  |
| TOTAL                | 3,370,052                            | 174,283                                       | 6,649,658                      | 50,797,447   | 57,447,105 | 391,997               | 337,433                       | 6,129,031                                         | 67,849,901 |



**TABLE B-5B. Annual Water Quantities Delivered to Each Contractor**

(in acre-feet)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                         |                                                 |                                          |                                                    |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|--------------------------------------------------|-------------------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water Agency | Castaic<br>Lake<br>Water<br>Agency <sup>c</sup> | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [20]                                             | [21]                                            | [22]                                     | [23]                                               | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                       | [29]                                                    |
| 1962             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1963             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1964             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1965             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1966             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1967             | 0                                                | 0                                               | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1968             | 0                                                | 7,382                                           | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1969             | 0                                                | 9,970                                           | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1970             | 0                                                | 11,739                                          | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1971             | 0                                                | 12,490                                          | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 53                                               | 13,905                                          | 0                                        | 464                                                | 0                         | 338                                           | 55                        | 0                             | 1,275                                                      | 0                                                       |
| 1973             | 20                                               | 9,418                                           | 5,800                                    | 389                                                | 9,000                     | 290                                           | 0                         | 0                             | 32,426                                                     | 0                                                       |
| 1974             | 1,259                                            | 9,700                                           | 6,400                                    | 627                                                | 10,000                    | 400                                           | 14                        | 0                             | 16,605                                                     | 612                                                     |
| 1975             | 8,068                                            | 10,700                                          | 7,000                                    | 825                                                | 11,000                    | 520                                           | 0                         | 0                             | 13,865                                                     | 5,450                                                   |
| 1976             | 27,782                                           | 11,700                                          | 7,600                                    | 1,002                                              | 12,000                    | 589                                           | 0                         | 0                             | 12,273                                                     | 6,071                                                   |
| 1977             | 11,202                                           | 5,075                                           | 0                                        | 1,109                                              | 0                         | 111                                           | 80                        | 0                             | 24,833                                                     | 8,996                                                   |
| 1978             | 44,137                                           | 11,362                                          | 10,084                                   | 1,209                                              | 15,300                    | 208                                           | 0                         | 0                             | 4,055                                                      | 7,771                                                   |
| 1979             | 60,493                                           | 19,145                                          | 10,063                                   | 1,260                                              | 15,000                    | 133                                           | 4,000                     | 0                             | 18                                                         | 290                                                     |
| 1980             | 72,407                                           | 15,092                                          | 10,884                                   | 1,239                                              | 17,000                    | 191                                           | 4,000                     | 0                             | 0                                                          | 1,085                                                   |
| 1981             | 79,375                                           | 18,461                                          | 12,105                                   | 1,485                                              | 19,000                    | 1,270                                         | 4,000                     | 0                             | 16,021                                                     | 3,619                                                   |
| 1982             | 50,291                                           | 22,216                                          | 13,326                                   | 1,238                                              | 21,000                    | 0                                             | 10,500                    | 0                             | 8,409                                                      | 12,599                                                  |
| 1983             | 32,961                                           | 22,135                                          | 14,547                                   | 911                                                | 23,000                    | 38                                            | 0                         | 0                             | 5,994                                                      | 734                                                     |
| 1984             | 32,662                                           | 24,218                                          | 15,768                                   | 1,128                                              | 25,000                    | 1                                             | 0                         | 0                             | 5,556                                                      | 7,656                                                   |
| 1985             | 37,064                                           | 24,500                                          | 16,989                                   | 1,422                                              | 27,000                    | 0                                             | 0                         | 1,558                         | 7,390                                                      | 5,028                                                   |
| 1986             | 32,449                                           | 27,229                                          | 18,210                                   | 1,506                                              | 29,000                    | 163                                           | 0                         | 3,096                         | 6,421                                                      | 9,454                                                   |
| 1987             | 34,089                                           | 27,988                                          | 19,431                                   | 1,849                                              | 31,500                    | 1,085                                         | 17                        | 5,379                         | 18,751                                                     | 10,630                                                  |
| 1988             | 34,079                                           | 30,438                                          | 20,652                                   | 2,006                                              | 34,000                    | 419                                           | 9                         | 1,770                         | 21,386                                                     | 8,948                                                   |
| 1989             | 45,280                                           | 36,364                                          | 21,873                                   | 2,170                                              | 36,500                    | 971                                           | 200                       | 9,009                         | 20,782                                                     | 12,839                                                  |
| 1990             | 47,206                                           | 28,579                                          | 23,100                                   | 1,827                                              | 38,100                    | 1,747                                         | 0                         | 8,608                         | 18,831                                                     | 16,649                                                  |
| 1991             | 9,568                                            | 4,562                                           | 6,930                                    | 849                                                | 11,430                    | 522                                           | 3,423                     | 3,914                         | 3,661                                                      | 5,399                                                   |
| 1992             | 30,265                                           | 20,699                                          | 10,427                                   | 519                                                | 17,197                    | 251                                           | 10,686                    | 4,035                         | 3,358                                                      | 7,908                                                   |
| 1993             | 43,102                                           | 23,039                                          | 23,100                                   | 439                                                | 38,100                    | 734                                           | 11,514                    | 7,761                         | 4,361                                                      | 14,397                                                  |
| 1994             | 49,153                                           | 26,441                                          | 14,102                                   | 785                                                | 23,257                    | 1,098                                         | 16,852                    | 8,418                         | 9,135                                                      | 15,230                                                  |
| 1995             | 47,286                                           | 27,233                                          | 23,100                                   | 409                                                | 38,100                    | 480                                           | 8,722                     | 6,961                         | 696                                                        | 12,922                                                  |
| 1996             | 56,356                                           | 32,500                                          | 62,219                                   | 485                                                | 102,622                   | 494                                           | 7,427                     | 11,434                        | 6,064                                                      | 15,989                                                  |
| 1997             | 62,393                                           | 27,712                                          | 68,340                                   | 651                                                | 69,990                    | 444                                           | 10,374                    | 11,861                        | 9,654                                                      | 18,175                                                  |
| 1998             | 52,926                                           | 20,093                                          | 85,709                                   | 187                                                | 70,647                    | 404                                           | 3,925                     | 8,752                         | 1,878                                                      | 9,310                                                   |
| 1999             | 69,073                                           | 32,899                                          | 50,480                                   | 1,132                                              | 58,100                    | 342                                           | 8,144                     | 13,278                        | 12,874                                                     | 21,729                                                  |
| 2000             | 83,577                                           | 40,680                                          | 42,323                                   | 1,194                                              | 58,234                    | 0                                             | 11,380                    | 9,060                         | 18,399                                                     | 15,140                                                  |
| 2001             | 62,857                                           | 31,939                                          | 9,100                                    | 1,057                                              | 15,010                    | 0                                             | 4,433                     | 10,427                        | 26,488                                                     | 2,360                                                   |
| 2002             | 58,171                                           | 68,817                                          | 16,755                                   | 2,189                                              | 27,640                    | 0                                             | 4,346                     | 18,496                        | 72,069                                                     | 24,851                                                  |
| 2003             | 60,029                                           | 55,736                                          | 14,443                                   | 1,563                                              | 23,819                    | 0                                             | 14,435                    | 11,547                        | 27,415                                                     | 21,934                                                  |
| 2004             | 59,731                                           | 83,761                                          | 15,465                                   | 2,006                                              | 21,190                    | 0                                             | 13,176                    | 12,162                        | 56,150                                                     | 12,541                                                  |
| 2005             | 59,831                                           | 59,456                                          | 34,356                                   | 205                                                | 49,089                    | 0                                             | 13,561                    | 11,712                        | 18,835                                                     | 13,984                                                  |
| 2006             | 74,461                                           | 58,516                                          | 60,550                                   | 2,900                                              | 25,000                    | 800                                           | 39,418                    | 18,284                        | 75,002                                                     | 15,160                                                  |
| 2007             | 54,396                                           | 56,000                                          | 104,600                                  | 3,340                                              | 30,950                    | 2,300                                         | 18,455                    | 21,300                        | 72,600                                                     | 12,000                                                  |
| 2008             | 126,695                                          | 95,200                                          | 121,100                                  | 5,920                                              | 50,000                    | 2,300                                         | 66,485                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2009             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2010             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2011             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2012             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2013             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2014             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2015             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2016             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2017             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2018             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2019             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2020             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2021             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2022             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2023             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2024             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2025             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2026             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2027             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2028             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2029             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2030             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2031             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2032             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2033             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2034             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| 2035             | 141,400                                          | 95,200                                          | 121,100                                  | 5,800                                              | 50,000                    | 2,300                                         | 75,800                    | 21,300                        | 102,600                                                    | 28,800                                                  |
| TOTAL            | 5,528,547                                        | 3,745,489                                       | 4,266,631                                | 206,096                                            | 2,453,775                 | 80,743                                        | 2,336,231                 | 815,222                       | 3,526,330                                                  | 1,163,860                                               |

c) Devil's Den Water District merged with Castaic Lake Water Agency effective January 1, 1992.

**TABLE B-5B. Annual Water Quantities Delivered to Each Contractor**

(in acre-feet)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (contd.)         |                                                                    |                                                   |             | FEATHER RIVER AREA         |                       |                            |           | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|-------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|-------------|----------------------------|-----------------------|----------------------------|-----------|-------------------------------------------|----------------|
|                  | San<br>Geronio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total       | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total     |                                           |                |
|                  | [30]                                      | [31]                                                               | [32]                                              | [33]        | [34]                       | [35]                  | [36]                       | [37]      | [38]                                      | [39]           |
| 1962             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 8,906          |
| 1963             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 12,645         |
| 1964             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 20,911         |
| 1965             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 34,026         |
| 1966             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 54,913         |
| 1967             | 0                                         | 0                                                                  | 0                                                 | 0           | 0                          | 0                     | 0                          | 0         | 0                                         | 56,763         |
| 1968             | 0                                         | 0                                                                  | 0                                                 | 7,382       | 0                          | 0                     | 0                          | 0         | 0                                         | 294,457        |
| 1969             | 0                                         | 0                                                                  | 0                                                 | 9,970       | 0                          | 0                     | 0                          | 0         | 0                                         | 268,104        |
| 1970             | 0                                         | 0                                                                  | 0                                                 | 11,739      | 0                          | 0                     | 70                         | 70        | 0                                         | 369,459        |
| 1971             | 0                                         | 0                                                                  | 0                                                 | 12,490      | 0                          | 0                     | 64                         | 64        | 0                                         | 654,250        |
| 1972             | 0                                         | 71,938                                                             | 0                                                 | 88,028      | 0                          | 0                     | 505                        | 505       | 0                                         | 1,037,584      |
| 1973             | 0                                         | 159,883                                                            | 0                                                 | 217,226     | 0                          | 0                     | 679                        | 679       | 0                                         | 737,479        |
| 1974             | 0                                         | 277,717                                                            | 0                                                 | 323,334     | 0                          | 0                     | 648                        | 648       | 0                                         | 878,820        |
| 1975             | 0                                         | 526,491                                                            | 0                                                 | 583,919     | 0                          | 0                     | 405                        | 405       | 0                                         | 1,230,577      |
| 1976             | 0                                         | 618,451                                                            | 0                                                 | 697,468     | 0                          | 0                     | 382                        | 382       | 0                                         | 1,379,597      |
| 1977             | 0                                         | 189,755                                                            | 0                                                 | 241,161     | 0                          | 0                     | 303                        | 303       | 0                                         | 581,675        |
| 1978             | 0                                         | 507,565                                                            | 0                                                 | 601,691     | 0                          | 0                     | 278                        | 278       | 0                                         | 1,458,154      |
| 1979             | 0                                         | 477,074                                                            | 0                                                 | 587,476     | 0                          | 0                     | 329                        | 329       | 0                                         | 1,666,155      |
| 1980             | 0                                         | 531,727                                                            | 0                                                 | 653,625     | 0                          | 0                     | 295                        | 295       | 0                                         | 1,536,189      |
| 1981             | 0                                         | 795,846                                                            | 0                                                 | 951,182     | 0                          | 0                     | 355                        | 355       | 0                                         | 1,918,342      |
| 1982             | 0                                         | 691,192                                                            | 0                                                 | 830,771     | 0                          | 0                     | 305                        | 305       | 0                                         | 1,750,528      |
| 1983             | 0                                         | 343,521                                                            | 0                                                 | 443,841     | 0                          | 0                     | 262                        | 262       | 0                                         | 1,186,831      |
| 1984             | 0                                         | 457,582                                                            | 0                                                 | 569,571     | 0                          | 0                     | 272                        | 272       | 0                                         | 1,591,131      |
| 1985             | 0                                         | 683,625                                                            | 0                                                 | 804,576     | 0                          | 0                     | 254                        | 254       | 0                                         | 1,989,925      |
| 1986             | 0                                         | 708,840                                                            | 0                                                 | 836,368     | 0                          | 0                     | 317                        | 317       | 0                                         | 1,998,514      |
| 1987             | 0                                         | 712,424                                                            | 0                                                 | 863,143     | 0                          | 0                     | 452                        | 452       | 0                                         | 2,131,061      |
| 1988             | 0                                         | 902,564                                                            | 0                                                 | 1,056,271   | 0                          | 0                     | 523                        | 523       | 0                                         | 2,384,434      |
| 1989             | 0                                         | 1,156,698                                                          | 0                                                 | 1,342,686   | 0                          | 0                     | 486                        | 486       | 0                                         | 2,853,044      |
| 1990             | 0                                         | 1,396,423                                                          | 4,836                                             | 1,585,906   | 0                          | 0                     | 548                        | 548       | 0                                         | 2,581,277      |
| 1991             | 0                                         | 391,447                                                            | 988                                               | 442,693     | 0                          | 0                     | 420                        | 420       | 0                                         | 548,520        |
| 1992             | 0                                         | 710,313                                                            | 0                                                 | 815,658     | 0                          | 0                     | 485                        | 485       | 0                                         | 1,470,695      |
| 1993             | 0                                         | 652,190                                                            | 0                                                 | 818,737     | 0                          | 0                     | 444                        | 444       | 0                                         | 2,314,233      |
| 1994             | 0                                         | 807,866                                                            | 0                                                 | 972,337     | 0                          | 0                     | 492                        | 492       | 0                                         | 1,860,612      |
| 1995             | 0                                         | 436,042                                                            | 0                                                 | 601,951     | 0                          | 0                     | 308                        | 308       | 0                                         | 2,030,310      |
| 1996             | 0                                         | 593,380                                                            | 0                                                 | 888,970     | 0                          | 0                     | 360                        | 360       | 0                                         | 2,542,395      |
| 1997             | 0                                         | 721,810                                                            | 1,850                                             | 1,003,254   | 0                          | 0                     | 231                        | 231       | 0                                         | 2,404,254      |
| 1998             | 0                                         | 410,065                                                            | 1,850                                             | 665,746     | 0                          | 0                     | 0                          | 0         | 0                                         | 1,763,382      |
| 1999             | 0                                         | 852,617                                                            | 1,850                                             | 1,122,518   | 1,096                      | 286                   | 0                          | 1,382     | 0                                         | 2,896,961      |
| 2000             | 0                                         | 1,541,816                                                          | 4,050                                             | 1,825,853   | 901                        | 586                   | 0                          | 1,487     | 0                                         | 3,539,727      |
| 2001             | 0                                         | 1,023,169                                                          | 1,850                                             | 1,188,690   | 1,065                      | 513                   | 0                          | 1,578     | 0                                         | 2,174,288      |
| 2002             | 0                                         | 1,408,919                                                          | 4,998                                             | 1,707,251   | 1,181                      | 419                   | 0                          | 1,600     | 0                                         | 2,912,927      |
| 2003             | 116                                       | 1,686,973                                                          | 5,000                                             | 1,923,010   | 1,324                      | 551                   | 0                          | 1,875     | 0                                         | 3,314,471      |
| 2004             | 841                                       | 1,724,380                                                          | 5,250                                             | 2,006,653   | 1,434                      | 1,440                 | 0                          | 2,874     | 0                                         | 3,234,515      |
| 2005             | 692                                       | 1,374,345                                                          | 1,665                                             | 1,637,731   | 1,894                      | 527                   | 0                          | 2,421     | 0                                         | 3,578,496      |
| 2006             | 2,690                                     | 1,984,897                                                          | 5,000                                             | 2,362,678   | 5,480                      | 1,200                 | 270                        | 6,950     | 0                                         | 4,008,815      |
| 2007             | 7,500                                     | 1,711,500                                                          | 20,000                                            | 2,114,941   | 9,600                      | 1,183                 | 600                        | 11,383    | 0                                         | 3,592,738      |
| 2008             | 17,300                                    | 1,363,389                                                          | 20,000                                            | 2,021,089   | 9,600                      | 1,200                 | 630                        | 11,430    | 0                                         | 3,585,122      |
| 2009             | 17,300                                    | 1,363,389                                                          | 20,000                                            | 2,044,989   | 9,600                      | 27,500                | 2,090                      | 39,190    | 0                                         | 3,618,265      |
| 2010             | 17,300                                    | 1,363,389                                                          | 20,000                                            | 2,044,989   | 9,600                      | 27,500                | 2,160                      | 39,260    | 0                                         | 3,618,710      |
| 2011             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,240                      | 39,340    | 0                                         | 4,167,276      |
| 2012             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,320                      | 39,420    | 0                                         | 4,167,731      |
| 2013             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,410                      | 39,510    | 0                                         | 4,168,146      |
| 2014             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,500                      | 39,600    | 0                                         | 4,168,661      |
| 2015             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,600                      | 39,700    | 0                                         | 4,169,486      |
| 2016             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,170,211      |
| 2017             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,170,836      |
| 2018             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,171,461      |
| 2019             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,086      |
| 2020             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,686      |
| 2021             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2022             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2023             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2024             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2025             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2026             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2027             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2028             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2029             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2030             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2031             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2032             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2033             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2034             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| 2035             | 17,300                                    | 1,911,500                                                          | 20,000                                            | 2,593,100   | 9,600                      | 27,500                | 2,700                      | 39,800    | 0                                         | 4,172,786      |
| TOTAL            | 496,239                                   | 81,118,712                                                         | 619,187                                           | 106,357,062 | 292,775                    | 750,405               | 82,292                     | 1,125,472 | 0                                         | 191,965,557    |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 1 of 9

| Calendar<br><br>Year | NORTH BAY AQUEDUCT             |                            |                             |        |                                            |                            |                             |        |                                              |                            |                                          |        |
|----------------------|--------------------------------|----------------------------|-----------------------------|--------|--------------------------------------------|----------------------------|-----------------------------|--------|----------------------------------------------|----------------------------|------------------------------------------|--------|
|                      | Barker Slough<br>Pumping Plant |                            |                             |        | Cordelia Pumping Plant<br>Solano County WA |                            |                             |        | Cordelia Pumping Plant<br>Napa County FC&WCD |                            |                                          |        |
|                      | Initial<br>Fill<br>Water       | Opera-<br>tional<br>Losses | Water<br>Supply<br>Delivery | Total  | Initial<br>Fill<br>Water                   | Opera-<br>tional<br>Losses | Water<br>Supply<br>Delivery | Total  | Initial<br>Fill<br>Water                     | Opera-<br>tional<br>Losses | Water<br>Supply<br>Delivery <sup>a</sup> | Total  |
|                      | [1]                            | [2]                        | [3]                         | [4]    | [5]                                        | [6]                        | [7]                         | [8]    | [9]                                          | [10]                       | [11]                                     | [12]   |
| 1961                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1962                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1963                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1964                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1965                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1966                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1967                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 0                                        | 0      |
| 1968                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 24                                           | (10)                       | 1,214                                    | 1,228  |
| 1969                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 2                          | 2,687                                    | 2,689  |
| 1970                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 18                         | 3,618                                    | 3,636  |
| 1971                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 4                          | 2,521                                    | 2,525  |
| 1972                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (10)                       | 3,647                                    | 3,637  |
| 1973                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 1                          | 3,792                                    | 3,793  |
| 1974                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 10                         | 4,870                                    | 4,880  |
| 1975                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 10                         | 6,840                                    | 6,850  |
| 1976                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 4                          | 7,122                                    | 7,126  |
| 1977                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 2                          | 8,226                                    | 8,228  |
| 1978                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (6)                        | 6,034                                    | 6,028  |
| 1979                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 1                          | 6,561                                    | 6,562  |
| 1980                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (3)                        | 6,707                                    | 6,704  |
| 1981                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 8                          | 9,001                                    | 9,009  |
| 1982                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (8)                        | 1,213                                    | 1,205  |
| 1983                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (12)                       | 2,287                                    | 2,275  |
| 1984                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (15)                       | 2,923                                    | 2,908  |
| 1985                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 13                         | 4,039                                    | 4,052  |
| 1986                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | (4)                        | 3,519                                    | 3,515  |
| 1987                 | 0                              | 0                          | 0                           | 0      | 0                                          | 0                          | 0                           | 0      | 0                                            | 0                          | 7,693                                    | 7,693  |
| 1988                 | 1                              | 283                        | 15,118                      | 15,402 | 0                                          | 0                          | 9,725                       | 9,725  | 1                                            | (1)                        | 5,392                                    | 5,392  |
| 1989                 | 0                              | 758                        | 23,451                      | 24,209 | 0                                          | 0                          | 17,246                      | 17,246 | 0                                            | (4)                        | 6,195                                    | 6,191  |
| 1990                 | 0                              | 3                          | 26,071                      | 26,074 | 0                                          | (634)                      | 15,856                      | 15,222 | 0                                            | 3                          | 6,940                                    | 6,943  |
| 1991                 | 0                              | 667                        | 8,352                       | 9,019  | 0                                          | 124                        | 3,855                       | 3,979  | 0                                            | 198                        | 1,380                                    | 1,578  |
| 1992                 | 0                              | 1,643                      | 18,774                      | 20,417 | 0                                          | 0                          | 9,220                       | 9,220  | 0                                            | 0                          | 4,001                                    | 4,001  |
| 1993                 | 0                              | 1,153                      | 34,466                      | 35,619 | 0                                          | 0                          | 14,471                      | 14,471 | 0                                            | 0                          | 5,286                                    | 5,286  |
| 1994                 | 0                              | 780                        | 32,048                      | 32,828 | 0                                          | (6)                        | 14,913                      | 14,907 | 0                                            | 0                          | 6,792                                    | 6,792  |
| 1995                 | 0                              | 908                        | 26,527                      | 27,435 | 0                                          | 0                          | 15,893                      | 15,893 | 0                                            | 0                          | 5,182                                    | 5,182  |
| 1996                 | 0                              | 1,354                      | 34,892                      | 36,246 | 0                                          | 0                          | 17,069                      | 17,069 | 0                                            | 0                          | 4,893                                    | 4,893  |
| 1997                 | 0                              | 1,422                      | 37,871                      | 39,293 | 0                                          | 0                          | 17,501                      | 17,501 | 0                                            | 0                          | 4,341                                    | 4,341  |
| 1998                 | 0                              | 1,343                      | 35,125                      | 36,468 | 0                                          | 0                          | 18,204                      | 18,204 | 0                                            | 0                          | 5,359                                    | 5,359  |
| 1999                 | 0                              | 2,522                      | 40,057                      | 42,579 | 0                                          | 0                          | 19,562                      | 19,562 | 0                                            | 0                          | 5,304                                    | 5,304  |
| 2000                 | 0                              | 1,853                      | 41,973                      | 43,826 | 0                                          | 4                          | 21,525                      | 21,529 | 0                                            | 180                        | 4,958                                    | 5,138  |
| 2001                 | 0                              | 1,760                      | 43,931                      | 45,691 | 0                                          | 0                          | 19,737                      | 19,737 | 0                                            | 0                          | 9,345                                    | 9,345  |
| 2002                 | 0                              | 496                        | 45,435                      | 45,931 | 0                                          | 0                          | 19,719                      | 19,719 | 0                                            | 0                          | 6,875                                    | 6,875  |
| 2003                 | 0                              | 3,991                      | 41,597                      | 45,588 | 0                                          | 0                          | 16,691                      | 16,691 | 0                                            | 0                          | 7,646                                    | 7,646  |
| 2004                 | 0                              | 2,181                      | 51,136                      | 53,317 | 0                                          | 0                          | 22,051                      | 22,051 | 0                                            | 0                          | 8,134                                    | 8,134  |
| 2005                 | 0                              | 935                        | 45,488                      | 46,423 | 0                                          | 0                          | 19,189                      | 19,189 | 0                                            | 0                          | 8,009                                    | 8,009  |
| 2006                 | 0                              | 51                         | 63,824                      | 63,875 | 0                                          | 0                          | 29,212                      | 29,212 | 0                                            | 5                          | 15,708                                   | 15,713 |
| 2007                 | 0                              | 51                         | 57,845                      | 57,896 | 0                                          | 0                          | 20,975                      | 20,975 | 0                                            | 5                          | 17,000                                   | 17,005 |
| 2008                 | 0                              | 51                         | 89,498                      | 89,549 | 0                                          | 0                          | 20,975                      | 20,975 | 0                                            | 5                          | 24,975                                   | 24,980 |
| 2009                 | 0                              | 51                         | 70,981                      | 71,032 | 0                                          | 0                          | 6,625                       | 6,625  | 0                                            | 5                          | 23,525                                   | 23,530 |
| 2010                 | 0                              | 51                         | 71,356                      | 71,407 | 0                                          | 0                          | 6,625                       | 6,625  | 0                                            | 5                          | 23,850                                   | 23,855 |
| 2011                 | 0                              | 51                         | 71,731                      | 71,782 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 24,175                                   | 24,180 |
| 2012                 | 0                              | 51                         | 72,106                      | 72,157 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 24,500                                   | 24,505 |
| 2013                 | 0                              | 51                         | 72,431                      | 72,482 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 24,775                                   | 24,780 |
| 2014                 | 0                              | 51                         | 72,856                      | 72,907 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 25,150                                   | 25,155 |
| 2015                 | 0                              | 51                         | 73,581                      | 73,632 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 25,825                                   | 25,830 |
| 2016                 | 0                              | 51                         | 74,206                      | 74,257 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 26,450                                   | 26,455 |
| 2017                 | 0                              | 51                         | 74,831                      | 74,882 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 27,075                                   | 27,080 |
| 2018                 | 0                              | 51                         | 75,456                      | 75,507 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 27,700                                   | 27,705 |
| 2019                 | 0                              | 51                         | 76,081                      | 76,132 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 28,325                                   | 28,330 |
| 2020                 | 0                              | 51                         | 76,681                      | 76,732 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 28,925                                   | 28,930 |
| 2021                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2022                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2023                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2024                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2025                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2026                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2027                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2028                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2029                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2030                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2031                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2032                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2033                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2034                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |
| 2035                 | 0                              | 51                         | 76,781                      | 76,832 | 0                                          | 0                          | 18,150                      | 18,150 | 0                                            | 5                          | 29,025                                   | 29,030 |

a) Non-Project water deliveries were pumped through an interim facility from 1968 through 1987.

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

| Calendar |                         |                    |                           |            |      |         | (in acre-feet)                                 |                    |                           |              |            |           |                    |           |  |  | Sheet 2 of 9 |  |  |  |
|----------|-------------------------|--------------------|---------------------------|------------|------|---------|------------------------------------------------|--------------------|---------------------------|--------------|------------|-----------|--------------------|-----------|--|--|--------------|--|--|--|
|          | SOUTH BAY AQUEDUCT      |                    |                           |            |      |         | CALIFORNIA AQUEDUCT                            |                    |                           |              |            |           |                    |           |  |  |              |  |  |  |
|          | South Bay Pumping Plant |                    |                           |            |      |         | North San Joaquin Division Banks Pumping Plant |                    |                           |              |            |           |                    |           |  |  |              |  |  |  |
|          |                         |                    |                           |            |      |         | Transportation Water                           |                    |                           |              |            |           |                    |           |  |  |              |  |  |  |
|          | Initial Fill Water      | Operational Losses | Reservoir Storage Changes | Deliveries |      | Total   | Initial Fill Water                             | Operational Losses | Reservoir Storage Changes | Deliveries   |            | Total     | Conservation Water | Total     |  |  |              |  |  |  |
|          |                         |                    | Water Supply <sup>b</sup> | Recreation |      |         |                                                |                    |                           | Water Supply | Recreation |           |                    |           |  |  |              |  |  |  |
|          | [13]                    | [14]               | [15]                      | [16]       | [17] | [18]    | [19]                                           | [20]               | [21]                      | [22]         | [23]       | [24]      | [25]               | [26]      |  |  |              |  |  |  |
| 1961     | 0                       | 0                  | 0                         | 0          | 0    | 0       | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1962     | 9                       | 272                | 0                         | 8,906      | 0    | 9,187   | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1963     | 71                      | 185                | 0                         | 12,645     | 0    | 12,901  | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1964     | 171                     | 152                | 0                         | 20,911     | 0    | 21,234  | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1965     | 93                      | 729                | 0                         | 34,026     | 0    | 34,848  | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1966     | 0                       | 1,746              | 0                         | 54,913     | 0    | 56,659  | 0                                              | 0                  | 0                         | 0            | 0          | 0         | 0                  | 0         |  |  |              |  |  |  |
| 1967     | 0                       | 1,677              | 0                         | 56,763     | 0    | 58,440  | 5,746                                          | 1,183              | 0                         | 11,538       | 0          | 18,467    | 2,957              | 21,424    |  |  |              |  |  |  |
| 1968     | 0                       | 1,847              | 0                         | 101,055    | 0    | 102,902 | 11,079                                         | 74,464             | 0                         | 293,243      | 0          | 378,786   | 531,275            | 910,061   |  |  |              |  |  |  |
| 1969     | 3,449                   | 2,668              | 0                         | 69,712     | 0    | 75,829  | 7,336                                          | 44,287             | 0                         | 265,417      | 0          | 317,040   | 531,185            | 848,225   |  |  |              |  |  |  |
| 1970     | 16,279                  | 1,086              | (5,355)                   | 89,560     | 0    | 101,570 | 23,947                                         | 20,767             | (5,355)                   | 365,771      | 0          | 405,130   | (12,995)           | 392,135   |  |  |              |  |  |  |
| 1971     | 0                       | 1,815              | 8,854                     | 98,584     | 0    | 109,253 | 23,207                                         | (10,754)           | 8,854                     | 651,665      | 8          | 672,980   | 7,708              | 680,688   |  |  |              |  |  |  |
| 1972     | 0                       | 3,557              | 2,273                     | 138,426    | 0    | 144,256 | 145,066                                        | 9,057              | (4,285)                   | 1,033,432    | 6,489      | 1,189,759 | 48,300             | 1,238,059 |  |  |              |  |  |  |
| 1973     | 0                       | (33)               | (1,510)                   | 94,078     | 0    | 92,535  | 214,941                                        | (4,951)            | 2,902                     | 733,008      | 1,155      | 947,055   | 55,846             | 1,002,901 |  |  |              |  |  |  |
| 1974     | 0                       | 1,287              | (10,056)                  | 89,318     | 0    | 80,549  | 247,894                                        | (11,526)           | (32,510)                  | 873,302      | 2,118      | 1,079,278 | 54,683             | 1,133,961 |  |  |              |  |  |  |
| 1975     | 0                       | 320                | 8,550                     | 93,604     | 0    | 102,474 | 110,149                                        | (8,092)            | 16,101                    | 1,223,332    | 3,377      | 1,344,867 | (102,625)          | 1,242,242 |  |  |              |  |  |  |
| 1976     | 0                       | 2,431              | 1,391                     | 126,431    | 141  | 130,394 | 67,834                                         | 5,443              | (244,124)                 | 1,372,093    | 1,745      | 1,202,991 | (442,348)          | 760,643   |  |  |              |  |  |  |
| 1977     | 0                       | 2,866              | 2,685                     | 107,704    | 112  | 113,367 | 0                                              | 39,897             | (157,543)                 | 573,146      | 1,111      | 456,611   | (13,507)           | 443,104   |  |  |              |  |  |  |
| 1978     | 0                       | 2,165              | (11,249)                  | 112,574    | 126  | 103,616 | 67,457                                         | (36,898)           | 35,129                    | 1,451,842    | 1,177      | 1,518,707 | 752,075            | 2,270,782 |  |  |              |  |  |  |
| 1979     | 0                       | 2,401              | 1,069                     | 122,190    | 89   | 125,749 | 17,397                                         | 60,958             | (32,307)                  | 1,659,265    | 1,398      | 1,706,711 | (112,053)          | 1,594,658 |  |  |              |  |  |  |
| 1980     | 0                       | 1,758              | (6,563)                   | 115,824    | 123  | 111,142 | 3,159                                          | 58,484             | (275,538)                 | 1,529,187    | 2,131      | 1,317,423 | 186,601            | 1,504,024 |  |  |              |  |  |  |
| 1981     | 0                       | 2,627              | 13,742                    | 129,507    | 121  | 145,997 | 46,060                                         | 85,350             | 40,536                    | 1,908,986    | 4,974      | 2,085,906 | (931,878)          | 1,154,028 |  |  |              |  |  |  |
| 1982     | 0                       | 2,344              | (23,928)                  | 107,439    | 129  | 85,984  | 5,979                                          | 61,556             | 99,897                    | 1,743,145    | 4,646      | 1,915,223 | 347,983            | 2,263,206 |  |  |              |  |  |  |
| 1983     | 0                       | 2,151              | (22,886)                  | 94,656     | 132  | 74,053  | 6,071                                          | 47,022             | (310,477)                 | 1,184,282    | 7,853      | 934,751   | 835,771            | 1,770,522 |  |  |              |  |  |  |
| 1984     | 0                       | 2,088              | 8,442                     | 98,122     | 158  | 108,810 | 38,649                                         | 97,143             | (108,548)                 | 1,587,936    | 5,874      | 1,621,054 | 21,875             | 1,642,929 |  |  |              |  |  |  |
| 1985     | 0                       | 2,817              | (1,607)                   | 122,088    | 152  | 123,450 | 0                                              | 110,469            | 137,783                   | 1,985,632    | 5,452      | 2,239,336 | (110,569)          | 2,128,767 |  |  |              |  |  |  |
| 1986     | 0                       | 2,299              | (1,850)                   | 110,988    | 130  | 111,567 | 0                                              | 90,799             | 20,177                    | 1,993,278    | 3,865      | 2,108,119 | 200,298            | 2,308,417 |  |  |              |  |  |  |
| 1987     | 0                       | 2,625              | (584)                     | 136,796    | 137  | 138,974 | 0                                              | 91,427             | (23,116)                  | 2,121,366    | 7,672      | 2,197,349 | (458,725)          | 1,738,624 |  |  |              |  |  |  |
| 1988     | 0                       | 2,884              | (698)                     | 147,255    | 142  | 149,583 | 0                                              | 107,249            | (35,484)                  | 2,368,793    | 4,889      | 2,445,447 | (303,583)          | 2,141,864 |  |  |              |  |  |  |
| 1989     | 0                       | 2,673              | 3,296                     | 142,269    | 152  | 148,390 | 0                                              | 117,603            | (38,058)                  | 2,829,107    | 8,135      | 2,916,787 | 421,131            | 3,337,918 |  |  |              |  |  |  |
| 1990     | 0                       | 894                | 1,982                     | 156,537    | 168  | 159,581 | 0                                              | 99,059             | (290,965)                 | 2,554,658    | 9,262      | 2,372,014 | (374,027)          | 1,997,987 |  |  |              |  |  |  |
| 1991     | 0                       | 2,637              | (4,532)                   | 50,259     | 150  | 48,514  | 0                                              | 80,106             | (79,038)                  | 539,748      | 4,879      | 545,695   | 554,904            | 1,100,599 |  |  |              |  |  |  |
| 1992     | 0                       | 2,881              | 756                       | 76,661     | 147  | 80,445  | 0                                              | 91,391             | (218,170)                 | 1,451,436    | 2,605      | 1,327,262 | 61,343             | 1,388,605 |  |  |              |  |  |  |
| 1993     | 0                       | 1,840              | (20,051)                  | 105,971    | 143  | 88,003  | 0                                              | 149,372            | (273,789)                 | 2,279,323    | 2,609      | 2,157,515 | 849,249            | 3,006,764 |  |  |              |  |  |  |
| 1994     | 0                       | 1,981              | 1,714                     | 100,568    | 168  | 104,431 | 0                                              | 148,712            | (120,985)                 | 1,828,072    | 3,803      | 1,859,602 | (324,640)          | 1,534,962 |  |  |              |  |  |  |
| 1995     | 0                       | 1,188              | (12,333)                  | 76,640     | 146  | 65,641  | 0                                              | 173,074            | (397,605)                 | 2,003,475    | 2,575      | 1,781,519 | 293,159            | 2,074,678 |  |  |              |  |  |  |
| 1996     | 0                       | 981                | (1,990)                   | 77,215     | 150  | 76,356  | 0                                              | 123,502            | 78,123                    | 2,507,143    | 3,902      | 2,712,670 | 288,576            | 3,001,246 |  |  |              |  |  |  |
| 1997     | 0                       | 1,575              | 5,016                     | 102,186    | 155  | 108,932 | 527                                            | 135,106            | (98,334)                  | 2,366,152    | 2,594      | 2,406,045 | (50,000)           | 2,356,045 |  |  |              |  |  |  |
| 1998     | 0                       | 1,551              | 3,595                     | 70,876     | 114  | 76,136  | 0                                              | 91,319             | (346,039)                 | 1,728,257    | 2,107      | 1,475,644 | 120,886            | 1,596,530 |  |  |              |  |  |  |
| 1999     | 0                       | 2,166              | 12,313                    | 100,497    | 139  | 115,115 | 0                                              | 135,809            | (17,569)                  | 2,855,522    | 4,301      | 2,978,063 | (307,839)          | 2,670,224 |  |  |              |  |  |  |
| 2000     | 0                       | 2,346              | (20,958)                  | 135,533    | 145  | 117,066 | 0                                              | 115,895            | (13,232)                  | 3,471,397    | 5,182      | 3,579,242 | (15,487)           | 3,563,755 |  |  |              |  |  |  |
| 2001     | 0                       | 2,784              | 1,301                     | 95,335     | 196  | 99,616  | 0                                              | 222,144            | (17,529)                  | 1,903,190    | 1,978      | 2,109,783 | 86,928             | 2,196,711 |  |  |              |  |  |  |
| 2002     | 0                       | 2,534              | (13,938)                  | 123,577    | 146  | 112,319 | 0                                              | 225,032            | 36,404                    | 2,807,771    | 4,672      | 3,073,879 | (151,719)          | 2,922,160 |  |  |              |  |  |  |
| 2003     | 0                       | 2,920              | (1,399)                   | 132,714    | 131  | 134,366 | 0                                              | 226,713            | (49,580)                  | 3,198,537    | 11,362     | 3,387,032 | 328,334            | 3,715,366 |  |  |              |  |  |  |
| 2004     | 0                       | 2,982              | (7,240)                   | 125,928    | 150  | 121,820 | 0                                              | 40,711             | (4,079)                   | 2,979,181    | 1,337      | 3,017,150 | 146,888            | 3,164,039 |  |  |              |  |  |  |
| 2005     | 0                       | 2,823              | (3,565)                   | 108,136    | 154  | 107,548 | 0                                              | 120,419            | (163,243)                 | 3,667,793    | 1,270      | 3,626,239 | 571,155            | 4,197,394 |  |  |              |  |  |  |
| 2006     | 0                       | 3,301              | (2,807)                   | 136,264    | 400  | 137,158 | 0                                              | 136,198            | (63,771)                  | 3,938,041    | 8,660      | 4,019,128 | 0                  | 4,019,128 |  |  |              |  |  |  |
| 2007     | 0                       | 3,298              | 193                       | 133,306    | 400  | 137,197 | 0                                              | 132,919            | 80,228                    | 3,523,510    | 8,660      | 3,745,317 | 0                  | 3,745,317 |  |  |              |  |  |  |
| 2008     | 0                       | 3,298              | 193                       | 154,926    | 400  | 158,817 | 0                                              | 125,910            | 190                       | 3,484,194    | 8,660      | 3,618,954 | 30,977             | 3,649,931 |  |  |              |  |  |  |
| 2009     | 0                       | 3,351              | 0                         | 155,726    | 400  | 159,477 | 0                                              | 129,619            | (15,186)                  | 3,508,094    | 8,660      | 3,631,187 | (140,708)          | 3,490,479 |  |  |              |  |  |  |
| 2010     | 0                       | 3,351              | 0                         | 155,726    | 400  | 159,477 | 0                                              | 128,523            | 4,288                     | 3,508,094    | 8,660      | 3,649,565 | 182,970            | 3,832,535 |  |  |              |  |  |  |
| 2011     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,364            | 64,678                    | 4,056,205    | 8,660      | 4,257,907 | 137,242            | 4,395,149 |  |  |              |  |  |  |
| 2012     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,100            | (67,943)                  | 4,056,205    | 8,660      | 4,125,022 | (260,827)          | 3,864,195 |  |  |              |  |  |  |
| 2013     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,264            | 9,749                     | 4,056,205    | 8,660      | 4,202,878 | 145,525            | 4,348,403 |  |  |              |  |  |  |
| 2014     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 130,280            | 16,625                    | 4,056,205    | 8,660      | 4,211,770 | (186,678)          | 4,025,092 |  |  |              |  |  |  |
| 2015     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 130,445            | 32,003                    | 4,056,205    | 8,660      | 4,227,313 | (31,516)           | 4,195,797 |  |  |              |  |  |  |
| 2016     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,415            | (28,401)                  | 4,056,205    | 8,660      | 4,164,879 | 205,134            | 4,370,013 |  |  |              |  |  |  |
| 2017     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,602            | 61,309                    | 4,056,205    | 8,660      | 4,254,776 | 119,885            | 4,374,661 |  |  |              |  |  |  |
| 2018     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,369            | (80,817)                  | 4,056,205    | 8,660      | 4,112,417 | (194,534)          | 3,917,883 |  |  |              |  |  |  |
| 2019     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,613            | 50,179                    | 4,056,205    | 8,660      | 4,234,657 | 77,224             | 4,320,881 |  |  |              |  |  |  |
| 2020     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,690            | (366)                     | 4,056,205    | 8,660      | 4,193,189 | (8,687)            | 4,184,502 |  |  |              |  |  |  |
| 2021     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,769            | 10,725                    | 4,056,205    | 8,660      | 4,204,359 | (1,095)            | 4,203,264 |  |  |              |  |  |  |
| 2022     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,846            | (3,483)                   | 4,056,205    | 8,660      | 4,190,228 | (185,907)          | 4,004,321 |  |  |              |  |  |  |
| 2023     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,818            | (18,971)                  | 4,056,205    | 8,660      | 4,174,712 | 115,791            | 4,290,503 |  |  |              |  |  |  |
| 2024     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,625            | 11,289                    | 4,056,205    | 8,660      | 4,204,779 | 79,858             | 4,284,637 |  |  |              |  |  |  |
| 2025     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 130,390            | (12,518)                  | 4,056,205    | 8,660      | 4,182,727 | (247,205)          | 3,935,522 |  |  |              |  |  |  |
| 2026     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,700            | 24,308                    | 4,056,205    | 8,660      | 4,217,873 | 246,850            | 4,464,723 |  |  |              |  |  |  |
| 2027     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,692            | (17,799)                  | 4,056,205    | 8,660      | 4,175,758 | (12,304)           | 4,163,454 |  |  |              |  |  |  |
| 2028     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,783            | 12,291                    | 4,056,205    | 8,660      | 4,205,939 | 15,430             | 4,221,369 |  |  |              |  |  |  |
| 2029     | 0                       | 3,351              | 0                         | 208,601    | 400  | 212,352 | 0                                              | 128,671            | (9,046)                   | 4,056,205    | 8,660      | 4,184,490 | (10,778)           | 4,173,712 |  |  |              |  |  |  |
| 2030     |                         |                    |                           |            |      |         |                                                |                    |                           |              |            |           |                    |           |  |  |              |  |  |  |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 3 of 9

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |                            |                                 |                 |                 |           |                            |                            |                                 |                 |        |           |
|----------------------|---------------------------------|----------------------------|---------------------------------|-----------------|-----------------|-----------|----------------------------|----------------------------|---------------------------------|-----------------|--------|-----------|
|                      | San Luis Division               |                            |                                 |                 |                 |           | South San Joaquin Division |                            |                                 |                 |        |           |
|                      | Dos Amigos Pumping Plant        |                            |                                 |                 |                 |           | Buena Vista Pumping Plant  |                            |                                 |                 |        |           |
|                      | Initial<br>Fill<br>Water        | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |                 | Total     | Initial<br>Fill<br>Water   | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |        | Total     |
| Water<br>Supply      |                                 |                            |                                 | Recrea-<br>tion | Water<br>Supply |           |                            |                            |                                 | Recrea-<br>tion |        |           |
|                      | [27]                            | [28]                       | [29]                            | [30]            | [31]            | [32]      | [33]                       | [34]                       | [35]                            | [36]            | [37]   | [38]      |
| 1961                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1962                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1963                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1964                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1965                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1966                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1967                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1968                 | 11.079                          | 25.126                     | 0                               | 189.104         | 0               | 225.309   | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1969                 | 3.887                           | 9.922                      | 0                               | 192.689         | 0               | 206.498   | 0                          | 0                          | 0                               | 0               | 0      | 0         |
| 1970                 | 7.668                           | 1.901                      | 0                               | 270.300         | 0               | 279.869   | 4.779                      | 1.012                      | 0                               | 3               | 0      | 5.794     |
| 1971                 | 23.207                          | (12.030)                   | 0                               | 545.869         | 0               | 557.046   | 7.853                      | 8.399                      | 0                               | 101.512         | 0      | 117.764   |
| 1972                 | 145.066                         | (6.635)                    | (6.558)                         | 886.840         | 6.481           | 1,025.194 | 100.274                    | 20.044                     | (6.558)                         | 223.626         | 6.481  | 343.867   |
| 1973                 | 214.941                         | (6.778)                    | 1.329                           | 635.716         | 1.147           | 846.355   | 204.638                    | 35.695                     | 1.329                           | 311.096         | 1.147  | 553.905   |
| 1974                 | 247.894                         | (16.765)                   | (15.295)                        | 780.513         | 2.108           | 998.455   | 237.554                    | 19.672                     | (15.295)                        | 388.949         | 2.108  | 632.988   |
| 1975                 | 110.149                         | (12.144)                   | (693)                           | 1,126.152       | 3.358           | 1,226.822 | 103.352                    | 26.342                     | (693)                           | 672.531         | 3.358  | 804.890   |
| 1976                 | 67.834                          | (456)                      | (152.171)                       | 1,241.550       | 1.581           | 1,158.338 | 61.122                     | 29.428                     | (152.171)                       | 785.055         | 1.581  | 725.015   |
| 1977                 | 0                               | 26.359                     | (116.219)                       | 463.970         | 737             | 374.847   | 0                          | 25.173                     | (116.219)                       | 271.944         | 560    | 181.458   |
| 1978                 | 67.457                          | 1.905                      | 79.308                          | 1,335.362       | 680             | 1,484.712 | 65.027                     | 17.751                     | 121.904                         | 762.043         | 674    | 967.399   |
| 1979                 | 17.397                          | 33.884                     | (51.299)                        | 1,530.926       | 685             | 1,531.593 | 12.302                     | 46.157                     | (51.299)                        | 737.714         | 502    | 745.376   |
| 1980                 | 3.159                           | 34.391                     | (272.825)                       | 1,407.663       | 1.514           | 1,173.902 | 0                          | 49.025                     | (134.009)                       | 778.059         | 1.262  | 694.337   |
| 1981                 | 46.060                          | 36.962                     | 23.359                          | 1,775.179       | 4.348           | 1,885.908 | 0                          | 38.942                     | 23.359                          | 1,077.322       | 4.112  | 1,143.735 |
| 1982                 | 5.979                           | 57.146                     | 116.086                         | 1,631.868       | 4.205           | 1,815.284 | 0                          | 29.059                     | 117.174                         | 990.863         | 4.045  | 1,141.141 |
| 1983                 | 6.071                           | 63.583                     | (101.155)                       | 1,085.804       | 7.475           | 1,061.778 | 0                          | 40.205                     | (101.155)                       | 593.920         | 7.291  | 540.261   |
| 1984                 | 38.649                          | 109.263                    | (112.744)                       | 1,484.114       | 5.391           | 1,524.673 | 0                          | 38.487                     | (114.984)                       | 781.955         | 5.244  | 710.702   |
| 1985                 | 0                               | 86.772                     | 138.898                         | 1,858.111       | 4.936           | 2,088.717 | 0                          | 42.838                     | 139.689                         | 992.606         | 4.804  | 1,179.937 |
| 1986                 | 0                               | 51.963                     | 19.989                          | 1,877.183       | 3.426           | 1,952.561 | 0                          | 36.751                     | 37.546                          | 1,014.294       | 3.285  | 1,091.876 |
| 1987                 | 0                               | 64.827                     | (25.707)                        | 1,978.945       | 7.121           | 2,025.186 | 0                          | 30.495                     | (25.522)                        | 1,027.361       | 6.937  | 1,039.271 |
| 1988                 | 0                               | 72.679                     | (34.592)                        | 2,217.126       | 4.490           | 2,259.703 | 0                          | 38.804                     | (29.747)                        | 1,244.196       | 4.360  | 1,257.613 |
| 1989                 | 0                               | 90.090                     | (29.411)                        | 2,679.845       | 7.652           | 2,748.176 | 0                          | 29.594                     | (60.826)                        | 1,532.625       | 7.490  | 1,508.883 |
| 1990                 | 0                               | 115.074                    | (11.323)                        | 2,394.999       | 8.922           | 2,507.672 | 0                          | 46.865                     | (15.092)                        | 1,769.991       | 8.879  | 1,810.643 |
| 1991                 | 0                               | 92.227                     | 9.325                           | 489.348         | 4.605           | 595.505   | 0                          | 39.274                     | 96.506                          | 446.916         | 4.560  | 587.256   |
| 1992                 | 0                               | 118.796                    | (225.603)                       | 1,372.536       | 2.079           | 1,267.808 | 0                          | 28.138                     | (98.271)                        | 920.978         | 1.995  | 852.840   |
| 1993                 | 0                               | 136.432                    | (220.537)                       | 2,170.494       | 1.864           | 2,088.253 | 0                          | 14.186                     | (128.363)                       | 908.200         | 1.676  | 795.699   |
| 1994                 | 0                               | 152.414                    | (78.957)                        | 1,724.433       | 3.098           | 1,800.988 | 0                          | 35.083                     | (88.211)                        | 1,107.122       | 2.918  | 1,056.912 |
| 1995                 | 0                               | 137.937                    | (12.473)                        | 1,921.666       | 1.711           | 2,048.841 | 0                          | 33.963                     | (16.431)                        | 706.742         | 1.669  | 725.943   |
| 1996                 | 0                               | 45.591                     | 14.927                          | 2,425.024       | 2.998           | 2,488.540 | 0                          | 31.304                     | 15.438                          | 988.612         | 2.928  | 1,038.282 |
| 1997                 | 527                             | 107.033                    | (66.814)                        | 2,247.628       | 2.090           | 2,290.464 | 0                          | 42.670                     | 40.852                          | 1,054.461       | 2.076  | 1,140.059 |
| 1998                 | 0                               | 95.185                     | (338.076)                       | 1,664.080       | 1.589           | 1,422.778 | 0                          | 41.910                     | (106.487)                       | 753.731         | 1.585  | 690.739   |
| 1999                 | 0                               | 95.262                     | (2.778)                         | 2,750.154       | 3.285           | 2,845.923 | 0                          | 48.502                     | (2.807)                         | 1,131.826       | 3.279  | 1,180.800 |
| 2000                 | 0                               | 134.231                    | 7.726                           | 3,270.211       | 4.222           | 3,416.390 | 0                          | 37.514                     | 7.726                           | 1,809.219       | 4.216  | 1,858.675 |
| 2001                 | 0                               | 150.830                    | (18.830)                        | 1,614.870       | 1.218           | 1,748.088 | 0                          | 31.361                     | (18.830)                        | 1,318.987       | 1.211  | 1,332.729 |
| 2002                 | 0                               | 92.905                     | 50.342                          | 2,625.006       | 3.968           | 2,772.221 | 0                          | 41.565                     | 50.342                          | 1,831.874       | 3.961  | 1,927.742 |
| 2003                 | 0                               | 85.360                     | (48.181)                        | 2,879.993       | 10.656          | 2,927.828 | 0                          | 43.352                     | (48.181)                        | 1,895.852       | 10.645 | 1,901.668 |
| 2004                 | 0                               | 25.865                     | 3.161                           | 2,807.789       | 652             | 2,837.467 | 0                          | 41.551                     | 3.161                           | 2,102.335       | 649    | 2,147.696 |
| 2005                 | 0                               | 62.569                     | (159.678)                       | 3,425.394       | 581             | 3,328.866 | 0                          | 35.020                     | (159.678)                       | 1,848.005       | 559    | 1,723.906 |
| 2006                 | 0                               | 73.012                     | (60.964)                        | 3,793.964       | 7.210           | 3,813.222 | 0                          | 43.550                     | (60.964)                        | 2,255.093       | 7.010  | 2,244.689 |
| 2007                 | 0                               | 72.986                     | 80.035                          | 3,349.651       | 7.210           | 3,509.882 | 0                          | 43.524                     | 80.035                          | 2,278.051       | 7.010  | 2,408.620 |
| 2008                 | 0                               | 73.635                     | (3)                             | 3,288.715       | 7.210           | 3,369.557 | 0                          | 44.173                     | (3)                             | 2,166.199       | 7.010  | 2,217.379 |
| 2009                 | 0                               | 70.102                     | (15.186)                        | 3,311.815       | 7.210           | 3,373.941 | 0                          | 40.640                     | (15.186)                        | 2,190.099       | 7.010  | 2,222.563 |
| 2010                 | 0                               | 70.198                     | 4.288                           | 3,311.815       | 7.210           | 3,393.511 | 0                          | 40.736                     | 4.288                           | 2,190.099       | 7.010  | 2,242.133 |
| 2011                 | 0                               | 70.389                     | 64.678                          | 3,837.054       | 7.210           | 3,979.331 | 0                          | 40.927                     | 64.678                          | 2,757.187       | 7.010  | 2,869.802 |
| 2012                 | 0                               | 70.279                     | (67.943)                        | 3,837.054       | 7.210           | 3,846.600 | 0                          | 40.817                     | (67.943)                        | 2,763.210       | 7.010  | 2,743.094 |
| 2013                 | 0                               | 70.217                     | 9.749                           | 3,837.054       | 7.210           | 3,924.230 | 0                          | 40.755                     | 9.749                           | 2,763.210       | 7.010  | 2,820.724 |
| 2014                 | 0                               | 70.525                     | 16.625                          | 3,837.054       | 7.210           | 3,931.414 | 0                          | 41.063                     | 16.625                          | 2,763.210       | 7.010  | 2,827.908 |
| 2015                 | 0                               | 70.654                     | 32.003                          | 3,837.054       | 7.210           | 3,946.921 | 0                          | 41.192                     | 32.003                          | 2,763.210       | 7.010  | 2,843.415 |
| 2016                 | 0                               | 70.354                     | (28.401)                        | 3,837.054       | 7.210           | 3,886.217 | 0                          | 40.892                     | (28.401)                        | 2,763.210       | 7.010  | 2,782.711 |
| 2017                 | 0                               | 70.586                     | 61.309                          | 3,837.054       | 7.210           | 3,976.159 | 0                          | 41.124                     | 61.309                          | 2,763.210       | 7.010  | 2,872.653 |
| 2018                 | 0                               | 70.740                     | (80.817)                        | 3,837.054       | 7.210           | 3,834.187 | 0                          | 41.278                     | (80.817)                        | 2,763.210       | 7.010  | 2,730.681 |
| 2019                 | 0                               | 70.564                     | 50.179                          | 3,837.054       | 7.210           | 3,965.007 | 0                          | 41.102                     | 50.179                          | 2,763.210       | 7.010  | 2,861.501 |
| 2020                 | 0                               | 70.628                     | (366)                           | 3,837.054       | 7.210           | 3,914.526 | 0                          | 41.166                     | (366)                           | 2,763.210       | 7.010  | 2,811.020 |
| 2021                 | 0                               | 70.711                     | 10.725                          | 3,837.054       | 7.210           | 3,925.700 | 0                          | 41.249                     | 10.725                          | 2,763.210       | 7.010  | 2,822.194 |
| 2022                 | 0                               | 70.705                     | (3.483)                         | 3,837.054       | 7.210           | 3,911.486 | 0                          | 41.243                     | (3.483)                         | 2,763.210       | 7.010  | 2,807.980 |
| 2023                 | 0                               | 70.696                     | (18.971)                        | 3,837.054       | 7.210           | 3,895.989 | 0                          | 41.234                     | (18.971)                        | 2,763.210       | 7.010  | 2,792.483 |
| 2024                 | 0                               | 70.575                     | 11.289                          | 3,837.054       | 7.210           | 3,926.128 | 0                          | 41.113                     | 11.289                          | 2,763.210       | 7.010  | 2,822.622 |
| 2025                 | 0                               | 70.638                     | (12.518)                        | 3,837.054       | 7.210           | 3,902.384 | 0                          | 41.176                     | (12.518)                        | 2,763.210       | 7.010  | 2,798.878 |
| 2026                 | 0                               | 70.650                     | 24.308                          | 3,837.054       | 7.210           | 3,939.222 | 0                          | 41.188                     | 24.308                          | 2,763.210       | 7.010  | 2,835.716 |
| 2027                 | 0                               | 70.563                     | (17.799)                        | 3,837.054       | 7.210           | 3,897.028 | 0                          | 41.101                     | (17.799)                        | 2,763.210       | 7.010  | 2,793.522 |
| 2028                 | 0                               | 70.703                     | 12.291                          | 3,837.054       | 7.210           | 3,927.258 | 0                          | 41.241                     | 12.291                          | 2,763.210       | 7.010  | 2,823.752 |
| 2029                 | 0                               | 70.630                     | (9.046)                         | 3,837.054       | 7.210           | 3,905.848 | 0                          | 41.168                     | (9.046)                         | 2,763.210       | 7.010  | 2,802.342 |
| 2030                 | 0                               | 70.694                     | 20.756                          | 3,837.054       | 7.210           | 3,935.714 | 0                          | 41.232                     | 20.756                          | 2,763.210       | 7.010  | 2,832.208 |
| 2031                 | 0                               | 70.566                     | (97.726)                        | 3,837.054       | 7.210           | 3,817.104 | 0                          | 41.104                     | (97.726)                        | 2,763.210       | 7.010  | 2,713.598 |
| 2032                 | 0                               | 70.168                     | 84.999                          | 3,837.054       | 7.210           | 3,999.431 | 0                          | 40.706                     | 84.999                          | 2,763.210       | 7.010  | 2,895.925 |
| 2033                 | 0                               | 70.373                     | (94.652)                        | 3,837.054       | 7.210           | 3,819.985 | 0                          | 40.911                     | (94.652)                        | 2,763.210       | 7.010  | 2,716.479 |
| 2034                 | 0                               | 69.865                     | 69.593                          | 3,837.054       | 7.210           | 3,983.722 | 0                          | 40.403                     | 69.593                          | 2,763.210       | 7.010  | 2,880.216 |
| 2035                 | 0                               | 69.205                     | (242.659)                       | 3,837.054       | 7.210           | 3,670.810 | 0                          | 39.743                     | (242.659)                       | 2,763.210       | 7.010  | 2,567.304 |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 4 of 9

| Calendar Year | CALIFORNIA AQUEDUCT (continued)        |                    |                           |            |        |           |                        |                    |                           |            |        |           |
|---------------|----------------------------------------|--------------------|---------------------------|------------|--------|-----------|------------------------|--------------------|---------------------------|------------|--------|-----------|
|               | South San Joaquin Division (continued) |                    |                           |            |        |           |                        |                    |                           |            |        |           |
|               | Teerink Pumping Plant                  |                    |                           |            |        |           | Chrisman Pumping Plant |                    |                           |            |        |           |
|               | Initial Fill Water                     | Operational Losses | Reservoir Storage Changes | Deliveries |        | Total     | Initial Fill Water     | Operational Losses | Reservoir Storage Changes | Deliveries |        | Total     |
|               | [39]                                   | [40]               | [41]                      | [42]       | [43]   | [44]      | [45]                   | [46]               | [47]                      | [48]       | [49]   | [50]      |
| 1961          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1962          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1963          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1964          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1965          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1966          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1967          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1968          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1969          | 0                                      | 0                  | 0                         | 0          | 0      | 0         | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1970          | 198                                    | 2                  | 0                         | 0          | 0      | 200       | 0                      | 0                  | 0                         | 0          | 0      | 0         |
| 1971          | 7,533                                  | (112)              | 0                         | 3,552      | 0      | 10,973    | 7,366                  | (159)              | 0                         | 0          | 0      | 7,207     |
| 1972          | 100,274                                | 12,765             | (6,558)                   | 84,955     | 6,481  | 197,917   | 100,274                | 13,160             | (6,558)                   | 78,891     | 6,481  | 192,248   |
| 1973          | 204,638                                | 21,543             | 1,329                     | 229,685    | 1,147  | 458,342   | 204,638                | 32,414             | 1,329                     | 209,769    | 1,147  | 449,297   |
| 1974          | 237,554                                | 11,843             | (15,295)                  | 336,198    | 2,108  | 572,408   | 237,554                | 17,655             | (15,295)                  | 318,198    | 2,108  | 560,220   |
| 1975          | 103,352                                | 19,763             | (693)                     | 621,706    | 3,358  | 747,486   | 103,352                | 25,326             | (693)                     | 586,286    | 3,358  | 717,629   |
| 1976          | 61,122                                 | 18,552             | (152,171)                 | 740,486    | 1,581  | 669,570   | 61,122                 | 21,468             | (152,171)                 | 700,935    | 1,581  | 632,935   |
| 1977          | 0                                      | 16,415             | (116,219)                 | 246,349    | 560    | 147,105   | 0                      | 15,698             | (116,219)                 | 240,191    | 560    | 140,230   |
| 1978          | 65,027                                 | 28,820             | 121,904                   | 631,121    | 674    | 847,546   | 65,027                 | 26,705             | 121,904                   | 599,973    | 674    | 814,283   |
| 1979          | 12,302                                 | 50,663             | (51,299)                  | 625,561    | 502    | 637,729   | 12,302                 | 50,580             | (51,299)                  | 586,959    | 502    | 599,044   |
| 1980          | 0                                      | 48,825             | (134,009)                 | 696,405    | 1,262  | 612,483   | 0                      | 58,085             | (134,009)                 | 658,588    | 1,262  | 583,926   |
| 1981          | 0                                      | 51,600             | 23,359                    | 998,307    | 4,112  | 1,077,378 | 0                      | 48,844             | 23,359                    | 959,274    | 4,112  | 1,035,589 |
| 1982          | 0                                      | 44,353             | 117,332                   | 878,486    | 4,045  | 1,044,216 | 0                      | 33,541             | 117,277                   | 830,704    | 4,045  | 985,567   |
| 1983          | 0                                      | 43,961             | (101,155)                 | 487,915    | 7,291  | 438,012   | 0                      | 34,698             | (101,155)                 | 450,489    | 7,291  | 391,323   |
| 1984          | 0                                      | 45,999             | (115,088)                 | 632,262    | 5,244  | 568,417   | 0                      | 33,132             | (115,092)                 | 582,414    | 5,244  | 505,698   |
| 1985          | 0                                      | 50,106             | 139,973                   | 854,684    | 4,804  | 1,049,567 | 0                      | 54,831             | 139,954                   | 810,606    | 4,804  | 1,010,195 |
| 1986          | 0                                      | 38,747             | 37,546                    | 882,300    | 3,285  | 961,878   | 0                      | 41,421             | 37,546                    | 839,839    | 3,285  | 922,091   |
| 1987          | 0                                      | 47,815             | (25,522)                  | 897,905    | 6,937  | 927,135   | 0                      | 33,195             | (25,522)                  | 863,157    | 6,937  | 877,767   |
| 1988          | 0                                      | 53,815             | (29,747)                  | 1,097,643  | 4,360  | 1,126,071 | 0                      | 39,775             | (29,747)                  | 1,055,649  | 4,360  | 1,070,037 |
| 1989          | 0                                      | 49,088             | (60,826)                  | 1,382,599  | 7,490  | 1,378,351 | 0                      | 42,307             | (60,826)                  | 1,339,358  | 7,490  | 1,328,329 |
| 1990          | 0                                      | 66,868             | (15,092)                  | 1,627,246  | 8,879  | 1,687,901 | 0                      | 56,663             | (15,092)                  | 1,590,893  | 8,879  | 1,641,343 |
| 1991          | 0                                      | 40,564             | 105,176                   | 446,148    | 4,560  | 596,448   | 0                      | 34,016             | 105,176                   | 446,148    | 4,560  | 589,900   |
| 1992          | 0                                      | 31,820             | (92,123)                  | 844,376    | 1,995  | 786,068   | 0                      | 34,477             | (92,123)                  | 820,133    | 1,995  | 764,482   |
| 1993          | 0                                      | 27,158             | (127,738)                 | 799,143    | 1,676  | 700,239   | 0                      | 28,614             | (127,738)                 | 771,146    | 1,676  | 673,698   |
| 1994          | 0                                      | 50,802             | (88,211)                  | 1,007,214  | 2,918  | 972,723   | 0                      | 57,203             | (88,211)                  | 977,703    | 2,918  | 949,613   |
| 1995          | 0                                      | 48,705             | (16,431)                  | 586,829    | 1,669  | 620,772   | 0                      | 36,309             | (16,431)                  | 560,695    | 1,669  | 582,242   |
| 1996          | 0                                      | 58,437             | 15,438                    | 836,819    | 2,928  | 913,622   | 0                      | 43,710             | 15,438                    | 800,633    | 2,928  | 862,709   |
| 1997          | 0                                      | 73,656             | 40,852                    | 918,124    | 2,076  | 1,034,708 | 0                      | 62,275             | 40,852                    | 881,843    | 2,076  | 987,046   |
| 1998          | 0                                      | 61,137             | (106,487)                 | 656,796    | 1,585  | 613,031   | 0                      | 47,523             | (106,487)                 | 628,084    | 1,585  | 570,705   |
| 1999          | 0                                      | 77,334             | (2,807)                   | 1,011,608  | 3,279  | 1,089,414 | 0                      | 55,514             | (2,807)                   | 1,047,807  | 3,279  | 1,030,793 |
| 2000          | 0                                      | 87,084             | 7,726                     | 1,685,654  | 4,216  | 1,784,680 | 0                      | 49,690             | 7,726                     | 1,645,591  | 4,216  | 1,707,223 |
| 2001          | 0                                      | 71,588             | (18,830)                  | 1,234,014  | 1,211  | 1,287,983 | 0                      | 54,742             | (18,830)                  | 1,202,822  | 1,211  | 1,239,945 |
| 2002          | 0                                      | 108,309            | 50,342                    | 1,740,813  | 3,961  | 1,903,425 | 0                      | 69,443             | 50,342                    | 1,699,261  | 3,961  | 1,823,007 |
| 2003          | 0                                      | 106,973            | (48,181)                  | 1,812,277  | 10,645 | 1,881,714 | 0                      | 57,291             | (48,181)                  | 1,775,675  | 10,645 | 1,795,430 |
| 2004          | 0                                      | 122,559            | 3,161                     | 2,032,492  | 649    | 2,158,861 | 0                      | 60,847             | 3,161                     | 1,992,308  | 649    | 2,056,965 |
| 2005          | 0                                      | 99,523             | (159,678)                 | 1,753,624  | 559    | 1,694,028 | 0                      | 53,502             | (159,678)                 | 1,713,754  | 559    | 1,608,137 |
| 2006          | 0                                      | 39,920             | (60,964)                  | 2,172,858  | 7,010  | 2,158,824 | 0                      | 39,670             | (60,964)                  | 2,126,303  | 7,010  | 2,112,019 |
| 2007          | 0                                      | 39,894             | 80,035                    | 2,179,351  | 7,010  | 2,306,290 | 0                      | 39,644             | 80,035                    | 2,131,051  | 7,010  | 2,257,740 |
| 2008          | 0                                      | 40,543             | (3)                       | 2,065,499  | 7,010  | 2,113,049 | 0                      | 40,293             | (3)                       | 2,017,199  | 7,010  | 2,064,499 |
| 2009          | 0                                      | 37,010             | (15,186)                  | 2,089,399  | 7,010  | 2,118,233 | 0                      | 36,760             | (15,186)                  | 2,041,099  | 7,010  | 2,069,683 |
| 2010          | 0                                      | 37,106             | 4,288                     | 2,089,399  | 7,010  | 2,137,803 | 0                      | 36,856             | 4,288                     | 2,041,099  | 7,010  | 2,089,253 |
| 2011          | 0                                      | 37,297             | 64,678                    | 2,658,487  | 7,010  | 2,767,472 | 0                      | 37,047             | 64,678                    | 2,610,187  | 7,010  | 2,718,922 |
| 2012          | 0                                      | 37,187             | (67,943)                  | 2,664,510  | 7,010  | 2,640,764 | 0                      | 36,937             | (67,943)                  | 2,616,210  | 7,010  | 2,592,214 |
| 2013          | 0                                      | 37,125             | 9,749                     | 2,664,510  | 7,010  | 2,718,394 | 0                      | 36,875             | 9,749                     | 2,616,210  | 7,010  | 2,669,844 |
| 2014          | 0                                      | 37,433             | 16,625                    | 2,664,510  | 7,010  | 2,725,578 | 0                      | 37,183             | 16,625                    | 2,616,210  | 7,010  | 2,677,028 |
| 2015          | 0                                      | 37,562             | 32,003                    | 2,664,510  | 7,010  | 2,741,085 | 0                      | 37,312             | 32,003                    | 2,616,210  | 7,010  | 2,692,535 |
| 2016          | 0                                      | 37,262             | (28,401)                  | 2,664,510  | 7,010  | 2,680,381 | 0                      | 37,012             | (28,401)                  | 2,616,210  | 7,010  | 2,631,831 |
| 2017          | 0                                      | 37,494             | 61,309                    | 2,664,510  | 7,010  | 2,770,323 | 0                      | 37,244             | 61,309                    | 2,616,210  | 7,010  | 2,721,773 |
| 2018          | 0                                      | 37,648             | (80,817)                  | 2,664,510  | 7,010  | 2,628,351 | 0                      | 37,398             | (80,817)                  | 2,616,210  | 7,010  | 2,579,801 |
| 2019          | 0                                      | 37,472             | 50,179                    | 2,664,510  | 7,010  | 2,759,171 | 0                      | 37,222             | 50,179                    | 2,616,210  | 7,010  | 2,710,621 |
| 2020          | 0                                      | 37,536             | (366)                     | 2,664,510  | 7,010  | 2,708,690 | 0                      | 37,286             | (366)                     | 2,616,210  | 7,010  | 2,660,140 |
| 2021          | 0                                      | 37,619             | 10,725                    | 2,664,510  | 7,010  | 2,719,864 | 0                      | 37,369             | 10,725                    | 2,616,210  | 7,010  | 2,671,314 |
| 2022          | 0                                      | 37,613             | (3,483)                   | 2,664,510  | 7,010  | 2,705,650 | 0                      | 37,363             | (3,483)                   | 2,616,210  | 7,010  | 2,657,100 |
| 2023          | 0                                      | 37,604             | (18,971)                  | 2,664,510  | 7,010  | 2,690,153 | 0                      | 37,354             | (18,971)                  | 2,616,210  | 7,010  | 2,641,603 |
| 2024          | 0                                      | 37,483             | 11,289                    | 2,664,510  | 7,010  | 2,720,292 | 0                      | 37,233             | 11,289                    | 2,616,210  | 7,010  | 2,671,742 |
| 2025          | 0                                      | 37,546             | (12,518)                  | 2,664,510  | 7,010  | 2,696,548 | 0                      | 37,296             | (12,518)                  | 2,616,210  | 7,010  | 2,647,998 |
| 2026          | 0                                      | 37,558             | 24,308                    | 2,664,510  | 7,010  | 2,733,386 | 0                      | 37,308             | 24,308                    | 2,616,210  | 7,010  | 2,684,836 |
| 2027          | 0                                      | 37,471             | (17,799)                  | 2,664,510  | 7,010  | 2,691,192 | 0                      | 37,221             | (17,799)                  | 2,616,210  | 7,010  | 2,642,642 |
| 2028          | 0                                      | 37,611             | 12,291                    | 2,664,510  | 7,010  | 2,721,422 | 0                      | 37,361             | 12,291                    | 2,616,210  | 7,010  | 2,672,872 |
| 2029          | 0                                      | 37,538             | (9,046)                   | 2,664,510  | 7,010  | 2,700,012 | 0                      | 37,288             | (9,046)                   | 2,616,210  | 7,010  | 2,651,462 |
| 2030          | 0                                      | 37,602             | 20,756                    | 2,664,510  | 7,010  | 2,729,878 | 0                      | 37,352             | 20,756                    | 2,616,210  | 7,010  | 2,681,328 |
| 2031          | 0                                      | 37,474             | (97,726)                  | 2,664,510  | 7,010  | 2,611,268 | 0                      | 37,224             | (97,726)                  | 2,616,210  | 7,010  | 2,562,718 |
| 2032          | 0                                      | 37,076             | 84,999                    | 2,664,510  | 7,010  | 2,793,595 | 0                      | 36,826             | 84,999                    | 2,616,210  | 7,010  | 2,745,045 |
| 2033          | 0                                      | 37,281             | (94,652)                  | 2,664,510  | 7,010  | 2,614,149 | 0                      | 37,031             | (94,652)                  | 2,616,210  | 7,010  | 2,565,599 |
| 2034          | 0                                      | 36,773             | 69,593                    | 2,664,510  | 7,010  | 2,777,886 | 0                      | 36,523             | 69,593                    | 2,616,210  | 7,010  | 2,729,336 |
| 2035          | 0                                      | 36,113             | (242,659)                 | 2,664,510  | 7,010  | 2,464,974 | 0                      | 35,863             | (242,659)                 | 2,616,210  | 7,010  | 2,416,424 |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 5 of 9

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |                            |                                 |                 |                 |           |                          |                            |                                 |                 |       |           |
|----------------------|---------------------------------|----------------------------|---------------------------------|-----------------|-----------------|-----------|--------------------------|----------------------------|---------------------------------|-----------------|-------|-----------|
|                      | Tehachapi Division              |                            |                                 |                 |                 |           | Mojave Division          |                            |                                 |                 |       |           |
|                      | Edmonston Pumping Plant         |                            |                                 |                 |                 |           | Alamo Powerplant         |                            |                                 |                 |       |           |
|                      | Initial<br>Fill<br>Water        | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |                 | Total     | Initial<br>Fill<br>Water | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |       | Total     |
| Water<br>Supply      |                                 |                            |                                 | Recrea-<br>tion | Water<br>Supply |           |                          |                            |                                 | Recrea-<br>tion |       |           |
|                      | [51]                            | [52]                       | [53]                            | [54]            | [55]            | [56]      | [57]                     | [58]                       | [59]                            | [60]            | [61]  | [62]      |
| 1961                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1962                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1963                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1964                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1965                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1966                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1967                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1968                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1969                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1970                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1971                 | 5,446                           | 8                          | 0                               | 0               | 0               | 5,454     | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1972                 | 100,274                         | 16,067                     | (6,558)                         | 74,123          | 6,481           | 190,387   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1973                 | 204,638                         | 34,051                     | 1,329                           | 207,808         | 1,147           | 448,973   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1974                 | 237,554                         | 18,181                     | (15,295)                        | 313,634         | 2,108           | 556,182   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1975                 | 103,352                         | 20,183                     | (693)                           | 573,219         | 3,358           | 699,419   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1976                 | 61,122                          | 21,096                     | (152,171)                       | 685,768         | 1,581           | 617,396   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1977                 | 0                               | 18,424                     | (116,219)                       | 236,086         | 560             | 138,851   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1978                 | 65,027                          | 20,887                     | 121,904                         | 590,329         | 674             | 798,821   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1979                 | 12,302                          | 46,332                     | (51,299)                        | 568,338         | 502             | 576,175   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1980                 | 0                               | 52,967                     | (134,009)                       | 639,743         | 1,262           | 559,963   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1981                 | 0                               | 40,602                     | 23,359                          | 938,482         | 4,112           | 1,006,555 | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1982                 | 0                               | 37,244                     | 117,296                         | 812,206         | 4,045           | 970,791   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1983                 | 0                               | 40,690                     | (101,155)                       | 431,182         | 7,291           | 378,008   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1984                 | 0                               | 42,112                     | (115,214)                       | 556,830         | 5,244           | 488,972   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1985                 | 0                               | 45,265                     | 139,988                         | 792,477         | 4,804           | 982,534   | 0                        | 0                          | 0                               | 0               | 0     | 0         |
| 1986                 | 0                               | 36,918                     | 37,546                          | 823,067         | 3,285           | 900,816   | 0                        | 14,735                     | 12,258                          | 429,864         | 1,508 | 458,365   |
| 1987                 | 0                               | 29,580                     | (25,522)                        | 851,322         | 6,937           | 862,317   | 0                        | 11,665                     | (15,270)                        | 417,870         | 1,239 | 415,504   |
| 1988                 | 0                               | 42,017                     | (29,747)                        | 1,044,737       | 4,360           | 1,061,367 | 0                        | 21,696                     | 1,101                           | 537,568         | 971   | 561,336   |
| 1989                 | 0                               | 32,270                     | (60,826)                        | 1,328,041       | 7,490           | 1,306,975 | 0                        | 4,686                      | (20,363)                        | 716,360         | 1,407 | 702,090   |
| 1990                 | 0                               | 42,198                     | (15,092)                        | 1,579,466       | 8,879           | 1,615,451 | 0                        | 8,898                      | (5,916)                         | 788,111         | 1,388 | 792,481   |
| 1991                 | 0                               | 33,999                     | 105,176                         | 441,217         | 4,560           | 584,952   | 0                        | 17,908                     | 34,422                          | 177,308         | 394   | 230,032   |
| 1992                 | 0                               | 23,121                     | (92,123)                        | 809,771         | 1,995           | 742,764   | 0                        | 14,873                     | (17,115)                        | 374,110         | 423   | 372,291   |
| 1993                 | 0                               | 11,946                     | (127,738)                       | 759,485         | 1,676           | 645,369   | 0                        | 9,304                      | (3,455)                         | 308,222         | 443   | 314,514   |
| 1994                 | 0                               | 40,808                     | (88,211)                        | 960,815         | 2,918           | 916,330   | 0                        | 21,837                     | 3,395                           | 469,996         | 430   | 495,658   |
| 1995                 | 0                               | 36,001                     | (16,431)                        | 542,465         | 1,669           | 563,704   | 0                        | 14,139                     | (30,761)                        | 384,836         | 427   | 368,641   |
| 1996                 | 0                               | 37,357                     | 15,438                          | 779,918         | 2,928           | 835,641   | 0                        | 7,247                      | (11,410)                        | 493,852         | 565   | 490,254   |
| 1997                 | 0                               | 51,475                     | 40,852                          | 860,798         | 2,076           | 955,201   | 0                        | 20,725                     | 38,960                          | 537,586         | 507   | 597,778   |
| 1998                 | 0                               | 48,601                     | (106,487)                       | 607,301         | 1,585           | 551,000   | 0                        | 21,456                     | 16,361                          | 398,385         | 363   | 436,565   |
| 1999                 | 0                               | 52,726                     | (2,807)                         | 947,420         | 3,279           | 1,000,618 | 0                        | 26,644                     | (8,486)                         | 589,756         | 396   | 608,310   |
| 2000                 | 0                               | 43,072                     | 7,726                           | 1,621,657       | 4,216           | 1,676,671 | 0                        | 8,983                      | (10,472)                        | 953,531         | 449   | 952,491   |
| 2001                 | 0                               | 39,544                     | (18,830)                        | 1,187,452       | 1,211           | 1,209,377 | 0                        | 14,526                     | 3,478                           | 710,137         | 452   | 728,593   |
| 2002                 | 0                               | 60,037                     | 50,342                          | 1,680,514       | 3,961           | 1,794,854 | 0                        | 15,190                     | 8,398                           | 901,230         | 490   | 925,308   |
| 2003                 | 0                               | 53,320                     | (48,181)                        | 1,757,708       | 10,645          | 1,773,492 | 0                        | 13,676                     | (20,787)                        | 1,022,009       | 355   | 1,015,253 |
| 2004                 | 0                               | 57,962                     | 3,161                           | 1,970,355       | 649             | 2,032,127 | 0                        | 15,581                     | 17,207                          | 1,120,348       | 171   | 1,153,307 |
| 2005                 | 0                               | 40,949                     | (159,678)                       | 1,695,234       | 559             | 1,577,064 | 0                        | 2,561                      | (50,014)                        | 1,117,983       | 84    | 1,070,614 |
| 2006                 | 0                               | 38,120                     | (60,964)                        | 2,105,670       | 7,010           | 2,089,836 | 0                        | 20,809                     | 2,964                           | 1,301,885       | 1,630 | 1,327,288 |
| 2007                 | 0                               | 38,094                     | 80,035                          | 2,107,941       | 7,010           | 2,233,080 | 0                        | 20,811                     | (39)                            | 1,210,706       | 1,630 | 1,233,108 |
| 2008                 | 0                               | 38,743                     | (3)                             | 1,994,089       | 7,010           | 2,039,839 | 0                        | 21,350                     | (73)                            | 978,821         | 1,630 | 1,001,728 |
| 2009                 | 0                               | 35,210                     | (15,186)                        | 2,017,989       | 7,010           | 2,045,023 | 0                        | 20,905                     | (9,404)                         | 1,002,721       | 1,630 | 1,015,852 |
| 2010                 | 0                               | 35,306                     | 4,288                           | 2,017,989       | 7,010           | 2,064,593 | 0                        | 21,001                     | 3,921                           | 1,002,721       | 1,630 | 1,029,273 |
| 2011                 | 0                               | 35,497                     | 64,678                          | 2,587,077       | 7,010           | 2,694,262 | 0                        | 20,971                     | 26,001                          | 1,450,665       | 1,630 | 1,499,267 |
| 2012                 | 0                               | 35,387                     | (67,943)                        | 2,593,100       | 7,010           | 2,567,554 | 0                        | 20,962                     | (41,797)                        | 1,450,665       | 1,630 | 1,431,460 |
| 2013                 | 0                               | 35,325                     | 9,749                           | 2,593,100       | 7,010           | 2,645,184 | 0                        | 20,835                     | 4,742                           | 1,450,665       | 1,630 | 1,477,872 |
| 2014                 | 0                               | 35,633                     | 16,625                          | 2,593,100       | 7,010           | 2,652,368 | 0                        | 21,002                     | 2,759                           | 1,450,665       | 1,630 | 1,476,056 |
| 2015                 | 0                               | 35,762                     | 32,003                          | 2,593,100       | 7,010           | 2,667,875 | 0                        | 21,066                     | 22,604                          | 1,450,665       | 1,630 | 1,495,965 |
| 2016                 | 0                               | 35,462                     | (28,401)                        | 2,593,100       | 7,010           | 2,607,171 | 0                        | 20,829                     | (21,084)                        | 1,450,665       | 1,630 | 1,452,040 |
| 2017                 | 0                               | 35,694                     | 61,309                          | 2,593,100       | 7,010           | 2,697,113 | 0                        | 20,895                     | 33,266                          | 1,450,665       | 1,630 | 1,506,456 |
| 2018                 | 0                               | 35,848                     | (80,817)                        | 2,593,100       | 7,010           | 2,555,141 | 0                        | 20,998                     | (50,078)                        | 1,450,665       | 1,630 | 1,423,215 |
| 2019                 | 0                               | 35,672                     | 50,179                          | 2,593,100       | 7,010           | 2,685,961 | 0                        | 20,924                     | 31,508                          | 1,450,665       | 1,630 | 1,504,727 |
| 2020                 | 0                               | 35,736                     | (366)                           | 2,593,100       | 7,010           | 2,635,480 | 0                        | 20,947                     | (3,398)                         | 1,450,665       | 1,630 | 1,469,844 |
| 2021                 | 0                               | 35,819                     | 10,725                          | 2,593,100       | 7,010           | 2,646,654 | 0                        | 20,946                     | (1,117)                         | 1,450,665       | 1,630 | 1,472,124 |
| 2022                 | 0                               | 35,813                     | (3,483)                         | 2,593,100       | 7,010           | 2,632,440 | 0                        | 20,940                     | (3,434)                         | 1,450,665       | 1,630 | 1,469,801 |
| 2023                 | 0                               | 35,804                     | (18,971)                        | 2,593,100       | 7,010           | 2,616,943 | 0                        | 20,939                     | (18,638)                        | 1,450,665       | 1,630 | 1,454,596 |
| 2024                 | 0                               | 35,683                     | 11,289                          | 2,593,100       | 7,010           | 2,647,082 | 0                        | 20,881                     | 21,309                          | 1,450,665       | 1,630 | 1,494,485 |
| 2025                 | 0                               | 35,746                     | (12,518)                        | 2,593,100       | 7,010           | 2,623,338 | 0                        | 20,965                     | (11,624)                        | 1,450,665       | 1,630 | 1,461,636 |
| 2026                 | 0                               | 35,758                     | 24,308                          | 2,593,100       | 7,010           | 2,660,176 | 0                        | 20,930                     | 13,030                          | 1,450,665       | 1,630 | 1,486,255 |
| 2027                 | 0                               | 35,671                     | (17,799)                        | 2,593,100       | 7,010           | 2,617,982 | 0                        | 20,861                     | (6,161)                         | 1,450,665       | 1,630 | 1,466,995 |
| 2028                 | 0                               | 35,811                     | 12,291                          | 2,593,100       | 7,010           | 2,648,212 | 0                        | 20,961                     | 4,006                           | 1,450,665       | 1,630 | 1,477,262 |
| 2029                 | 0                               | 35,738                     | (9,046)                         | 2,593,100       | 7,010           | 2,626,802 | 0                        | 20,955                     | (913)                           | 1,450,665       | 1,630 | 1,472,337 |
| 2030                 | 0                               | 35,802                     | 20,756                          | 2,593,100       | 7,010           | 2,656,668 | 0                        | 20,930                     | 8,528                           | 1,450,665       | 1,630 | 1,481,753 |
| 2031                 | 0                               | 35,674                     | (97,726)                        | 2,593,100       | 7,010           | 2,538,058 | 0                        | 20,956                     | (31,057)                        | 1,450,665       | 1,630 | 1,442,194 |
| 2032                 | 0                               | 35,276                     | 84,999                          | 2,593,100       | 7,010           | 2,720,385 | 0                        | 20,865                     | 43,953                          | 1,450,665       | 1,630 | 1,517,113 |
| 2033                 | 0                               | 35,481                     | (94,652)                        | 2,593,100       | 7,010           | 2,540,939 | 0                        | 20,854                     | (37,929)                        | 1,450,665       | 1,630 | 1,435,220 |
| 2034                 | 0                               | 34,973                     | 69,593                          | 2,593,100       | 7,010           | 2,704,676 | 0                        | 20,769                     | 28,588                          | 1,450,665       | 1,630 | 1,501,652 |
| 2035                 | 0                               | 34,313                     | (242,659)                       | 2,593,100       | 7,010           | 2,391,764 | 0                        | 20,892                     | (49,219)                        | 1,450,665       | 1,630 | 1,423,968 |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 6 of 9

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |                            |                                 |            |       |           |                          |                            |                                 |            |       |           |
|----------------------|---------------------------------|----------------------------|---------------------------------|------------|-------|-----------|--------------------------|----------------------------|---------------------------------|------------|-------|-----------|
|                      | Mojave Division (continued)     |                            |                                 |            |       |           |                          |                            |                                 |            |       |           |
|                      | Pearblossom Pumping Plant       |                            |                                 |            |       |           | Mojave Siphon Powerplant |                            |                                 |            |       |           |
|                      | Initial<br>Fill<br>Water        | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries |       | Total     | Initial<br>Fill<br>Water | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries |       | Total     |
|                      | [63]                            | [64]                       | [65]                            | [66]       | [67]  | [68]      | [69]                     | [70]                       | [71]                            | [72]       | [73]  | [74]      |
| 1961                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1962                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1963                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1964                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1965                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1966                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1967                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1968                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1969                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1970                 | 0                               | 0                          | 0                               | 0          | 0     | 0         | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1971                 | 21                              | 0                          | 0                               | 0          | 0     | 21        | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1972                 | 35,243                          | 5,282                      | (153)                           | 1,794      | 0     | 42,166    | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1973                 | 80,177                          | 21,522                     | (2,700)                         | 52,201     | 72    | 151,272   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1974                 | 76,694                          | 10,847                     | (11,149)                        | 102,839    | 44    | 179,275   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1975                 | 10,000                          | 2,364                      | (8,397)                         | 190,351    | 70    | 194,388   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1976                 | 4,168                           | 7,040                      | (16,055)                        | 236,713    | 152   | 232,018   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1977                 | 0                               | 11,398                     | (17,534)                        | 102,326    | 580   | 96,770    | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1978                 | 19,922                          | 5,696                      | 69,130                          | 374,845    | 498   | 470,091   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1979                 | 12,302                          | 6,836                      | (32,518)                        | 362,114    | 502   | 349,236   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1980                 | 0                               | 16,200                     | 6,159                           | 401,214    | 781   | 424,354   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1981                 | 0                               | 4,992                      | (36,278)                        | 574,573    | 933   | 544,220   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1982                 | 0                               | 5,251                      | 55,232                          | 401,037    | 1,919 | 463,439   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1983                 | 0                               | 11,745                     | (26,847)                        | 231,188    | 1,180 | 217,266   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1984                 | 0                               | 18,228                     | 23,230                          | 252,066    | 1,494 | 295,018   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1985                 | 0                               | 25,292                     | (2,815)                         | 350,758    | 1,076 | 374,311   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1986                 | 0                               | 30,876                     | 12,258                          | 394,156    | 1,508 | 438,798   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1987                 | 0                               | 27,552                     | (15,270)                        | 377,531    | 1,239 | 391,052   | 0                        | 0                          | 0                               | 0          | 0     | 0         |
| 1988                 | 0                               | 32,209                     | 1,101                           | 501,300    | 971   | 535,581   | 0                        | 1,977                      | 1,101                           | 501,291    | 971   | 505,340   |
| 1989                 | 0                               | 31,500                     | (20,363)                        | 661,189    | 1,407 | 673,733   | 0                        | 29,110                     | (20,363)                        | 661,100    | 1,407 | 671,254   |
| 1990                 | 0                               | 32,672                     | (5,916)                         | 730,560    | 1,388 | 758,704   | 0                        | 23,692                     | (5,916)                         | 730,550    | 1,388 | 749,714   |
| 1991                 | 0                               | 15,209                     | 34,774                          | 163,913    | 394   | 214,290   | 0                        | (543)                      | 34,774                          | 163,913    | 394   | 198,538   |
| 1992                 | 0                               | 13,989                     | (17,451)                        | 338,249    | 423   | 335,210   | 0                        | (13,193)                   | (17,451)                        | 338,207    | 423   | 307,986   |
| 1993                 | 0                               | 9,779                      | (3,455)                         | 255,117    | 443   | 261,884   | 0                        | (11,922)                   | (3,455)                         | 255,117    | 443   | 240,183   |
| 1994                 | 0                               | 150                        | 3,395                           | 409,928    | 430   | 413,903   | 0                        | 1,601                      | 3,395                           | 395,294    | 430   | 400,720   |
| 1995                 | 0                               | 6,820                      | (29,282)                        | 328,882    | 427   | 306,847   | 0                        | 10,458                     | (29,282)                        | 321,387    | 427   | 302,990   |
| 1996                 | 0                               | 9,514                      | (11,410)                        | 424,252    | 565   | 422,921   | 0                        | (5,577)                    | (11,410)                        | 418,141    | 565   | 401,719   |
| 1997                 | 0                               | (1,124)                    | 38,960                          | 461,563    | 507   | 499,906   | 0                        | 5,171                      | 38,960                          | 452,525    | 507   | 497,163   |
| 1998                 | 0                               | (2,087)                    | 16,361                          | 334,965    | 363   | 349,602   | 0                        | 11,496                     | 16,361                          | 332,385    | 363   | 360,605   |
| 1999                 | 0                               | (1,154)                    | (8,486)                         | 505,624    | 396   | 496,380   | 0                        | 11,065                     | (8,486)                         | 498,919    | 396   | 501,894   |
| 2000                 | 0                               | (23,296)                   | (10,472)                        | 859,533    | 449   | 826,214   | 0                        | 4,896                      | (10,472)                        | 849,514    | 449   | 844,387   |
| 2001                 | 0                               | (9,304)                    | 3,478                           | 635,468    | 452   | 630,094   | 0                        | 7,403                      | 3,478                           | 632,420    | 452   | 643,753   |
| 2002                 | 0                               | 3,810                      | 8,398                           | 823,690    | 490   | 836,388   | 0                        | 9,300                      | 8,398                           | 820,217    | 490   | 838,405   |
| 2003                 | 0                               | 2,814                      | (20,787)                        | 949,148    | 355   | 931,530   | 0                        | (6,586)                    | (20,787)                        | 935,998    | 355   | 908,980   |
| 2004                 | 0                               | (15,558)                   | 17,207                          | 1,047,485  | 171   | 1,049,305 | 0                        | 5,034                      | 17,207                          | 1,035,279  | 171   | 1,057,691 |
| 2005                 | 0                               | (18,967)                   | (50,014)                        | 1,045,389  | 84    | 976,492   | 0                        | 827                        | (50,014)                        | 1,027,278  | 84    | 978,175   |
| 2006                 | 0                               | 15,459                     | 2,964                           | 1,206,994  | 1,430 | 1,226,847 | 0                        | 11,989                     | 2,964                           | 1,168,922  | 1,430 | 1,185,305 |
| 2007                 | 0                               | 15,461                     | (39)                            | 1,132,475  | 1,430 | 1,149,327 | 0                        | 11,991                     | (39)                            | 1,115,255  | 1,430 | 1,128,637 |
| 2008                 | 0                               | 16,000                     | (73)                            | 828,026    | 1,430 | 845,383   | 0                        | 12,530                     | (73)                            | 763,041    | 1,430 | 776,928   |
| 2009                 | 0                               | 15,555                     | (9,404)                         | 837,064    | 1,430 | 844,645   | 0                        | 12,085                     | (9,404)                         | 762,921    | 1,430 | 767,032   |
| 2010                 | 0                               | 15,651                     | 3,921                           | 837,486    | 1,430 | 858,488   | 0                        | 12,181                     | 3,921                           | 762,921    | 1,430 | 780,453   |
| 2011                 | 0                               | 15,621                     | 26,001                          | 1,284,165  | 1,430 | 1,327,217 | 0                        | 12,151                     | 26,001                          | 1,209,865  | 1,430 | 1,249,447 |
| 2012                 | 0                               | 15,612                     | (41,797)                        | 1,284,165  | 1,430 | 1,259,410 | 0                        | 12,142                     | (41,797)                        | 1,209,865  | 1,430 | 1,181,640 |
| 2013                 | 0                               | 15,485                     | 4,742                           | 1,284,165  | 1,430 | 1,305,822 | 0                        | 12,015                     | 4,742                           | 1,209,865  | 1,430 | 1,228,052 |
| 2014                 | 0                               | 15,652                     | 2,759                           | 1,284,165  | 1,430 | 1,304,006 | 0                        | 12,182                     | 2,759                           | 1,209,865  | 1,430 | 1,226,236 |
| 2015                 | 0                               | 15,716                     | 22,604                          | 1,284,165  | 1,430 | 1,323,915 | 0                        | 12,246                     | 22,604                          | 1,209,865  | 1,430 | 1,246,145 |
| 2016                 | 0                               | 15,479                     | (21,084)                        | 1,284,165  | 1,430 | 1,279,990 | 0                        | 12,009                     | (21,084)                        | 1,209,865  | 1,430 | 1,202,220 |
| 2017                 | 0                               | 15,545                     | 33,266                          | 1,284,165  | 1,430 | 1,334,406 | 0                        | 12,075                     | 33,266                          | 1,209,865  | 1,430 | 1,256,636 |
| 2018                 | 0                               | 15,648                     | (50,078)                        | 1,284,165  | 1,430 | 1,251,165 | 0                        | 12,178                     | (50,078)                        | 1,209,865  | 1,430 | 1,173,395 |
| 2019                 | 0                               | 15,574                     | 31,508                          | 1,284,165  | 1,430 | 1,332,677 | 0                        | 12,104                     | 31,508                          | 1,209,865  | 1,430 | 1,254,907 |
| 2020                 | 0                               | 15,597                     | (3,398)                         | 1,284,165  | 1,430 | 1,297,794 | 0                        | 12,127                     | (3,398)                         | 1,209,865  | 1,430 | 1,220,024 |
| 2021                 | 0                               | 15,596                     | (1,117)                         | 1,284,165  | 1,430 | 1,300,074 | 0                        | 12,126                     | (1,117)                         | 1,209,865  | 1,430 | 1,222,304 |
| 2022                 | 0                               | 15,590                     | (3,434)                         | 1,284,165  | 1,430 | 1,297,751 | 0                        | 12,120                     | (3,434)                         | 1,209,865  | 1,430 | 1,219,981 |
| 2023                 | 0                               | 15,589                     | (18,638)                        | 1,284,165  | 1,430 | 1,282,546 | 0                        | 12,119                     | (18,638)                        | 1,209,865  | 1,430 | 1,204,776 |
| 2024                 | 0                               | 15,531                     | 21,309                          | 1,284,165  | 1,430 | 1,322,435 | 0                        | 12,061                     | 21,309                          | 1,209,865  | 1,430 | 1,244,665 |
| 2025                 | 0                               | 15,615                     | (11,624)                        | 1,284,165  | 1,430 | 1,289,586 | 0                        | 12,145                     | (11,624)                        | 1,209,865  | 1,430 | 1,211,816 |
| 2026                 | 0                               | 15,580                     | 13,030                          | 1,284,165  | 1,430 | 1,314,205 | 0                        | 12,110                     | 13,030                          | 1,209,865  | 1,430 | 1,236,435 |
| 2027                 | 0                               | 15,511                     | (6,161)                         | 1,284,165  | 1,430 | 1,294,945 | 0                        | 12,041                     | (6,161)                         | 1,209,865  | 1,430 | 1,217,175 |
| 2028                 | 0                               | 15,611                     | 4,006                           | 1,284,165  | 1,430 | 1,305,212 | 0                        | 12,141                     | 4,006                           | 1,209,865  | 1,430 | 1,227,442 |
| 2029                 | 0                               | 15,605                     | (913)                           | 1,284,165  | 1,430 | 1,300,287 | 0                        | 12,135                     | (913)                           | 1,209,865  | 1,430 | 1,222,517 |
| 2030                 | 0                               | 15,580                     | 8,528                           | 1,284,165  | 1,430 | 1,309,703 | 0                        | 12,110                     | 8,528                           | 1,209,865  | 1,430 | 1,231,933 |
| 2031                 | 0                               | 15,606                     | (31,057)                        | 1,284,165  | 1,430 | 1,270,144 | 0                        | 12,136                     | (31,057)                        | 1,209,865  | 1,430 | 1,192,374 |
| 2032                 | 0                               | 15,515                     | 43,953                          | 1,284,165  | 1,430 | 1,345,063 | 0                        | 12,045                     | 43,953                          | 1,209,865  | 1,430 | 1,267,293 |
| 2033                 | 0                               | 15,504                     | (37,929)                        | 1,284,165  | 1,430 | 1,263,170 | 0                        | 12,034                     | (37,929)                        | 1,209,865  | 1,430 | 1,185,400 |
| 2034                 | 0                               | 15,419                     | 28,588                          | 1,284,165  | 1,430 | 1,329,602 | 0                        | 11,949                     | 28,588                          | 1,209,865  | 1,430 | 1,251,832 |
| 2035                 | 0                               | 15,542                     | (49,219)                        | 1,284,165  | 1,430 | 1,251,918 | 0                        | 12,072                     | (49,219)                        | 1,209,865  | 1,430 | 1,174,148 |



**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

(in acre-feet)

Sheet 7 of 9

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |                            |                                 |                 |                 |           |                                  |                            |                                 |                 |                 |           |
|----------------------|---------------------------------|----------------------------|---------------------------------|-----------------|-----------------|-----------|----------------------------------|----------------------------|---------------------------------|-----------------|-----------------|-----------|
|                      | Santa Ana Division              |                            |                                 |                 |                 |           | West Branch, California Aqueduct |                            |                                 |                 |                 |           |
|                      | Devil Canyon Powerplant         |                            |                                 |                 |                 |           | Oso Pumping Plant                |                            |                                 |                 |                 |           |
|                      | Initial<br>Fill<br>Water        | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |                 | Total     | Initial<br>Fill<br>Water         | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |                 | Total     |
|                      |                                 |                            |                                 | Water<br>Supply | Recrea-<br>tion |           |                                  |                            |                                 | Water<br>Supply | Recrea-<br>tion |           |
|                      | [75]                            | [76]                       | [77]                            | [78]            | [79]            | [80]      | [81]                             | [82]                       | [83]                            | [84]            | [85]            | [86]      |
| 1961                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1962                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1963                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1964                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1965                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1966                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1967                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1968                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1969                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1970                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 0                                | 0                          | 0                               | 0               | 0               | 0         |
| 1971                 | 0                               | 0                          | 0                               | 0               | 0               | 0         | 2,444                            | 133                        | 0                               | 0               | 0               | 2,577     |
| 1972                 | 37                              | 0                          | 0                               | 1,275           | 0               | 1,312     | 63,883                           | 6,557                      | (6,405)                         | 71,991          | 6,481           | 142,507   |
| 1973                 | 40,848                          | 14,745                     | 0                               | 51,812          | 0               | 107,405   | 124,461                          | 16,995                     | 4,029                           | 155,317         | 1,075           | 301,877   |
| 1974                 | 74,666                          | 8,367                      | (4,925)                         | 102,198         | 0               | 180,306   | 160,860                          | 12,702                     | (4,146)                         | 209,172         | 2,064           | 380,652   |
| 1975                 | 10,000                          | 1,995                      | (6,719)                         | 189,526         | 0               | 194,802   | 93,352                           | 23,008                     | 7,704                           | 374,306         | 3,288           | 501,658   |
| 1976                 | 4,168                           | 5,180                      | (9,182)                         | 235,711         | 23              | 235,900   | 56,954                           | 15,845                     | (136,116)                       | 420,708         | 1,429           | 358,820   |
| 1977                 | 0                               | 8,082                      | (5,235)                         | 101,137         | 469             | 104,453   | 0                                | 4,407                      | (98,685)                        | 122,447         | (20)            | 28,149    |
| 1978                 | 14,820                          | 3,754                      | 21,686                          | 373,636         | 481             | 414,377   | 45,105                           | 9,061                      | 52,774                          | 171,139         | 176             | 278,255   |
| 1979                 | 12,302                          | 5,620                      | (27,107)                        | 356,854         | 485             | 348,154   | 0                                | 25,355                     | (18,781)                        | 145,598         | 0               | 152,172   |
| 1980                 | 0                               | 9,468                      | 12,714                          | 395,975         | 742             | 418,899   | 0                                | 24,576                     | (140,168)                       | 165,931         | 481             | 50,820    |
| 1981                 | 0                               | 8,401                      | (23,448)                        | 569,088         | 807             | 554,848   | 0                                | 15,254                     | 59,637                          | 283,264         | 3,179           | 361,334   |
| 1982                 | 0                               | 6,012                      | 44,469                          | 399,799         | 1,798           | 452,078   | 0                                | 23,824                     | 61,685                          | 360,878         | 2,126           | 448,513   |
| 1983                 | 0                               | 8,597                      | 5,188                           | 230,277         | 1,078           | 245,140   | 0                                | 23,601                     | (74,308)                        | 166,995         | 6,111           | 122,399   |
| 1984                 | 0                               | 12,861                     | (850)                           | 250,938         | 1,414           | 264,363   | 0                                | 12,461                     | (138,146)                       | 272,101         | 3,750           | 150,166   |
| 1985                 | 0                               | 14,325                     | (8,791)                         | 349,336         | 956             | 355,826   | 0                                | 28,257                     | 142,219                         | 403,097         | 3,728           | 577,301   |
| 1986                 | 0                               | 9,486                      | 8,339                           | 392,650         | 1,378           | 411,853   | 0                                | 22,387                     | 25,288                          | 493,203         | 1,777           | 442,655   |
| 1987                 | 0                               | 7,923                      | (11,335)                        | 375,451         | 1,118           | 373,157   | 0                                | 18,164                     | (10,252)                        | 433,452         | 5,698           | 447,062   |
| 1988                 | 0                               | 11,090                     | 2,238                           | 499,285         | 861             | 513,474   | 0                                | 20,461                     | (30,848)                        | 507,169         | 3,389           | 500,171   |
| 1989                 | 0                               | 13,116                     | (5,487)                         | 658,730         | 1,301           | 667,660   | 0                                | 27,914                     | (40,463)                        | 611,681         | 6,083           | 605,215   |
| 1990                 | 0                               | 13,439                     | (4,622)                         | 728,723         | 1,281           | 738,821   | 0                                | 33,666                     | (9,176)                         | 791,355         | 7,491           | 823,336   |
| 1991                 | 0                               | 10,836                     | 18,308                          | 161,032         | 340             | 190,516   | 0                                | 16,460                     | 70,754                          | 263,909         | 4,166           | 355,289   |
| 1992                 | 0                               | 9,157                      | (9,084)                         | 328,354         | 371             | 328,798   | 0                                | 8,238                      | (75,008)                        | 435,661         | 1,572           | 370,463   |
| 1993                 | 0                               | 5,602                      | 5,593                           | 244,678         | 364             | 256,237   | 0                                | 2,674                      | (124,283)                       | 451,263         | 1,233           | 330,887   |
| 1994                 | 0                               | 10,915                     | (11,045)                        | 393,690         | 357             | 393,917   | 0                                | 18,688                     | (91,606)                        | 490,819         | 2,488           | 420,389   |
| 1995                 | 0                               | 11,268                     | 2,331                           | 320,978         | 358             | 334,935   | 0                                | 21,775                     | 14,330                          | 157,629         | 1,242           | 194,976   |
| 1996                 | 0                               | 9,496                      | 13,015                          | 417,656         | 494             | 440,661   | 0                                | 30,121                     | 26,848                          | 286,066         | 2,363           | 345,398   |
| 1997                 | 0                               | 8,087                      | (19,685)                        | 451,874         | 416             | 440,692   | 0                                | 30,468                     | 1,892                           | 323,212         | 1,569           | 357,141   |
| 1998                 | 0                               | 6,700                      | 16,643                          | 332,198         | 310             | 355,851   | 0                                | 26,851                     | (122,848)                       | 208,916         | 1,222           | 114,141   |
| 1999                 | 0                               | 9,784                      | (4,177)                         | 497,787         | 341             | 503,735   | 0                                | 25,690                     | 5,679                           | 357,664         | 2,883           | 391,916   |
| 2000                 | 0                               | 7,407                      | (11,040)                        | 848,320         | 375             | 845,062   | 0                                | 33,658                     | 18,198                          | 668,126         | 3,767           | 723,749   |
| 2001                 | 0                               | 9,324                      | 8,183                           | 631,363         | 374             | 649,244   | 0                                | 24,551                     | (22,308)                        | 477,315         | 759             | 480,317   |
| 2002                 | 0                               | 10,315                     | 9,682                           | 818,028         | 413             | 838,438   | 0                                | 44,692                     | 41,944                          | 779,284         | 3,471           | 869,391   |
| 2003                 | 0                               | 9,198                      | (18,298)                        | 917,186         | 260             | 908,346   | 0                                | 39,495                     | (27,394)                        | 735,699         | 10,290          | 758,090   |
| 2004                 | 0                               | 11,166                     | 15,150                          | 1,033,273       | 85              | 1,059,674 | 0                                | 41,947                     | (14,046)                        | 850,007         | 478             | 878,386   |
| 2005                 | 0                               | 4,500                      | (63,441)                        | 1,012,674       | 0               | 953,733   | 0                                | 37,432                     | (109,664)                       | 577,251         | 475             | 505,494   |
| 2006                 | 0                               | 7,806                      | 3,964                           | 1,166,022       | 1,250           | 1,179,042 | 0                                | 17,261                     | (63,928)                        | 803,785         | 5,380           | 762,498   |
| 2007                 | 0                               | 7,809                      | (39)                            | 1,111,915       | 1,250           | 1,120,935 | 0                                | 17,233                     | 80,074                          | 897,235         | 5,380           | 999,922   |
| 2008                 | 0                               | 8,348                      | (73)                            | 757,121         | 1,250           | 766,646   | 0                                | 17,343                     | 70                              | 1,015,268       | 5,380           | 1,038,061 |
| 2009                 | 0                               | 8,508                      | 3,506                           | 757,121         | 1,250           | 770,385   | 0                                | 14,255                     | (5,782)                         | 1,015,268       | 5,380           | 1,029,121 |
| 2010                 | 0                               | 8,504                      | 10,523                          | 757,121         | 1,250           | 777,398   | 0                                | 14,255                     | 367                             | 1,015,268       | 5,380           | 1,035,270 |
| 2011                 | 0                               | 8,519                      | 1,352                           | 1,204,065       | 1,250           | 1,215,186 | 0                                | 14,476                     | 38,677                          | 1,136,412       | 5,380           | 1,194,945 |
| 2012                 | 0                               | 8,482                      | (22,894)                        | 1,204,065       | 1,250           | 1,190,903 | 0                                | 14,375                     | (26,146)                        | 1,142,435       | 5,380           | 1,136,044 |
| 2013                 | 0                               | 8,499                      | 16,733                          | 1,204,065       | 1,250           | 1,230,547 | 0                                | 14,440                     | 5,007                           | 1,142,435       | 5,380           | 1,167,262 |
| 2014                 | 0                               | 8,522                      | (4,585)                         | 1,204,065       | 1,250           | 1,209,252 | 0                                | 14,581                     | 13,866                          | 1,142,435       | 5,380           | 1,176,262 |
| 2015                 | 0                               | 8,499                      | 2,964                           | 1,204,065       | 1,250           | 1,216,778 | 0                                | 14,646                     | 9,399                           | 1,142,435       | 5,380           | 1,171,860 |
| 2016                 | 0                               | 8,483                      | (1,269)                         | 1,204,065       | 1,250           | 1,212,529 | 0                                | 14,583                     | (7,317)                         | 1,142,435       | 5,380           | 1,155,081 |
| 2017                 | 0                               | 8,502                      | 9,828                           | 1,204,065       | 1,250           | 1,223,645 | 0                                | 14,749                     | 28,043                          | 1,142,435       | 5,380           | 1,190,607 |
| 2018                 | 0                               | 8,484                      | (19,777)                        | 1,204,065       | 1,250           | 1,194,022 | 0                                | 14,800                     | (30,739)                        | 1,142,435       | 5,380           | 1,131,876 |
| 2019                 | 0                               | 8,492                      | 17,408                          | 1,204,065       | 1,250           | 1,231,215 | 0                                | 14,698                     | 18,671                          | 1,142,435       | 5,380           | 1,181,184 |
| 2020                 | 0                               | 8,483                      | (17,305)                        | 1,204,065       | 1,250           | 1,196,493 | 0                                | 14,739                     | 3,032                           | 1,142,435       | 5,380           | 1,165,586 |
| 2021                 | 0                               | 8,486                      | (398)                           | 1,204,065       | 1,250           | 1,213,403 | 0                                | 14,823                     | 11,842                          | 1,142,435       | 5,380           | 1,174,480 |
| 2022                 | 0                               | 8,486                      | 13,735                          | 1,204,065       | 1,250           | 1,227,536 | 0                                | 14,823                     | (49)                            | 1,142,435       | 5,380           | 1,162,589 |
| 2023                 | 0                               | 8,482                      | (8,417)                         | 1,204,065       | 1,250           | 1,205,380 | 0                                | 14,815                     | (333)                           | 1,142,435       | 5,380           | 1,162,297 |
| 2024                 | 0                               | 8,462                      | 689                             | 1,204,065       | 1,250           | 1,214,466 | 0                                | 14,752                     | (10,020)                        | 1,142,435       | 5,380           | 1,152,547 |
| 2025                 | 0                               | 8,489                      | 4,591                           | 1,204,065       | 1,250           | 1,218,395 | 0                                | 14,731                     | (894)                           | 1,142,435       | 5,380           | 1,161,652 |
| 2026                 | 0                               | 8,475                      | (3,819)                         | 1,204,065       | 1,250           | 1,209,971 | 0                                | 14,778                     | 11,278                          | 1,142,435       | 5,380           | 1,173,871 |
| 2027                 | 0                               | 8,479                      | 745                             | 1,204,065       | 1,250           | 1,214,539 | 0                                | 14,760                     | (11,638)                        | 1,142,435       | 5,380           | 1,150,937 |
| 2028                 | 0                               | 8,481                      | (5,355)                         | 1,204,065       | 1,250           | 1,208,441 | 0                                | 14,800                     | 8,285                           | 1,142,435       | 5,380           | 1,170,900 |
| 2029                 | 0                               | 8,481                      | 2,909                           | 1,204,065       | 1,250           | 1,216,705 | 0                                | 14,733                     | (8,133)                         | 1,142,435       | 5,380           | 1,154,415 |
| 2030                 | 0                               | 8,480                      | 296                             | 1,204,065       | 1,250           | 1,214,091 | 0                                | 14,822                     | 12,228                          | 1,142,435       | 5,380           | 1,174,865 |
| 2031                 | 0                               | 8,475                      | (1,976)                         | 1,204,065       | 1,250           | 1,211,814 | 0                                | 14,668                     | (66,669)                        | 1,142,435       | 5,380           | 1,095,814 |
| 2032                 | 0                               | 8,449                      | 18,821                          | 1,204,065       | 1,250           | 1,232,585 | 0                                | 14,361                     | 41,046                          | 1,142,435       | 5,380           | 1,203,222 |
| 2033                 | 0                               | 8,449                      | (23,419)                        | 1,204,065       | 1,250           | 1,190,345 | 0                                | 14,577                     | (56,723)                        | 1,142,435       | 5,380           | 1,105,669 |
| 2034                 | 0                               | 8,443                      | 21,651                          | 1,204,065       | 1,250           | 1,235,409 | 0                                | 14,154                     | 41,005                          | 1,142,435       | 5,380           | 1,202,974 |
| 2035                 | 0                               | 8,451                      | (31,434)                        | 1,204,065       | 1,250           | 1,182,332 | 0                                | 13,371                     | (193,440)                       | 1,142,435       | 5,380           | 967,746   |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

| (in acre-feet)  |                                              |                            |                                 |                 |                 |           |                          |                            |                                 |                 |       |           |  |  | Sheet 8 of 9 |  |
|-----------------|----------------------------------------------|----------------------------|---------------------------------|-----------------|-----------------|-----------|--------------------------|----------------------------|---------------------------------|-----------------|-------|-----------|--|--|--------------|--|
| Calendar        | CALIFORNIA AQUEDUCT (continued)              |                            |                                 |                 |                 |           |                          |                            |                                 |                 |       |           |  |  |              |  |
|                 | West Branch, California Aqueduct (continued) |                            |                                 |                 |                 |           |                          |                            |                                 |                 |       |           |  |  |              |  |
|                 | Warne Powerplant                             |                            |                                 |                 |                 |           | Castaic Powerplant       |                            |                                 |                 |       |           |  |  |              |  |
|                 | Initial<br>Fill<br>Water                     | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |                 | Total     | Initial<br>Fill<br>Water | Opera-<br>tional<br>Losses | Reservoir<br>Storage<br>Changes | Deliveries      |       | Total     |  |  |              |  |
| Water<br>Supply |                                              |                            |                                 | Recrea-<br>tion | Water<br>Supply |           |                          |                            |                                 | Recrea-<br>tion |       |           |  |  |              |  |
| Year            | [87]                                         | [88]                       | [89]                            | [90]            | [91]            | [92]      | [93]                     | [94]                       | [95]                            | [96]            | [97]  | [98]      |  |  |              |  |
| 1961            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1962            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1963            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1964            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1965            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1966            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1967            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1968            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1969            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1970            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1971            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 0                          | 0                               | 0               | 0     | 0         |  |  |              |  |
| 1972            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 57,364                   | 1,788                      | (6,162)                         | 71,938          | 6,481 | 131,409   |  |  |              |  |
| 1973            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 37,198                   | 6,430                      | 4,542                           | 155,297         | 1,075 | 204,542   |  |  |              |  |
| 1974            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 82,364                   | 1,772                      | (950)                           | 209,136         | 541   | 292,863   |  |  |              |  |
| 1975            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 90,460                   | 5,002                      | (1,534)                         | 374,280         | 1,563 | 469,771   |  |  |              |  |
| 1976            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 55,990                   | (7,695)                    | (132,036)                       | 420,684         | 1,429 | 338,372   |  |  |              |  |
| 1977            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | (1,485)                    | (102,532)                       | 122,447         | (20)  | 18,410    |  |  |              |  |
| 1978            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 45,105                   | (2,264)                    | 129,523                         | 171,139         | 176   | 343,679   |  |  |              |  |
| 1979            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | (2,339)                    | (20,400)                        | 145,598         | 0     | 122,859   |  |  |              |  |
| 1980            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | 991                        | (118,026)                       | 165,931         | 481   | 49,377    |  |  |              |  |
| 1981            | 0                                            | 0                          | 0                               | 0               | 0               | 0         | 0                        | (44,416)                   | 47,244                          | 283,264         | 2,704 | 288,796   |  |  |              |  |
| 1982            | 0                                            | 24,468                     | 61,169                          | 360,878         | 2,126           | 448,641   | 0                        | (60,135)                   | 59,069                          | 360,878         | 1,187 | 360,999   |  |  |              |  |
| 1983            | 0                                            | 20,780                     | (74,308)                        | 166,995         | 6,111           | 119,578   | 0                        | (33,418)                   | (46,904)                        | 166,995         | 2,618 | 89,291    |  |  |              |  |
| 1984            | 0                                            | 13,572                     | (139,219)                       | 275,212         | 2,208           | 151,773   | 0                        | (29,618)                   | (139,545)                       | 275,212         | 2,201 | 108,250   |  |  |              |  |
| 1985            | 0                                            | 29,286                     | 141,492                         | 403,097         | 874             | 574,749   | 0                        | (4,622)                    | 135,007                         | 403,097         | 844   | 534,326   |  |  |              |  |
| 1986            | 0                                            | 21,579                     | 25,288                          | 393,203         | 1,777           | 441,847   | 0                        | (6,664)                    | 21,520                          | 393,203         | 623   | 408,682   |  |  |              |  |
| 1987            | 0                                            | 20,885                     | (10,252)                        | 433,452         | 5,698           | 449,783   | 0                        | (519)                      | (6,241)                         | 433,452         | 2,734 | 429,426   |  |  |              |  |
| 1988            | 0                                            | 23,253                     | (31,453)                        | 507,169         | 3,389           | 502,358   | 0                        | 12,650                     | (28,498)                        | 507,169         | 1,359 | 492,680   |  |  |              |  |
| 1989            | 0                                            | 27,131                     | (40,463)                        | 611,681         | 6,083           | 604,432   | 0                        | 634                        | (40,154)                        | 611,681         | 3,161 | 575,322   |  |  |              |  |
| 1990            | 0                                            | 34,208                     | (9,176)                         | 791,355         | 7,491           | 823,878   | 0                        | (14,012)                   | (15,101)                        | 786,519         | 3,419 | 760,825   |  |  |              |  |
| 1991            | 0                                            | 16,908                     | 70,754                          | 263,909         | 4,166           | 355,737   | 0                        | (871)                      | 89,637                          | 262,921         | 2,283 | 353,970   |  |  |              |  |
| 1992            | 0                                            | 9,638                      | (75,008)                        | 435,661         | 1,572           | 371,863   | 0                        | (609)                      | (71,795)                        | 435,661         | 1,543 | 364,800   |  |  |              |  |
| 1993            | 0                                            | 1,922                      | (124,283)                       | 451,257         | 1,233           | 330,129   | 0                        | 21,959                     | (77,428)                        | 451,257         | 1,211 | 396,999   |  |  |              |  |
| 1994            | 0                                            | 23,151                     | (91,606)                        | 490,819         | 2,488           | 424,852   | 0                        | 5,205                      | (95,738)                        | 490,819         | 2,465 | 402,751   |  |  |              |  |
| 1995            | 0                                            | 15,860                     | 14,330                          | 157,629         | 1,242           | 189,061   | 0                        | 20,400                     | 75,863                          | 157,629         | 1,223 | 255,115   |  |  |              |  |
| 1996            | 0                                            | 21,191                     | 26,848                          | 286,066         | 2,363           | 336,468   | 0                        | (5,621)                    | 19,088                          | 286,066         | 2,362 | 301,895   |  |  |              |  |
| 1997            | 0                                            | 23,437                     | 1,892                           | 323,201         | 1,569           | 350,099   | 0                        | 11,119                     | (1,802)                         | 323,201         | 1,566 | 334,084   |  |  |              |  |
| 1998            | 0                                            | 26,864                     | (122,848)                       | 208,909         | 1,222           | 114,147   | 0                        | 24,544                     | (57,726)                        | 208,909         | 1,222 | 176,949   |  |  |              |  |
| 1999            | 0                                            | 21,822                     | 8,120                           | 357,664         | 2,883           | 390,489   | 0                        | (3,670)                    | 6,280                           | 357,664         | 2,865 | 363,139   |  |  |              |  |
| 2000            | 0                                            | 27,237                     | 18,198                          | 668,126         | 3,767           | 717,328   | 0                        | (19,645)                   | 9,320                           | 665,926         | 1,556 | 657,157   |  |  |              |  |
| 2001            | 0                                            | 17,404                     | (22,308)                        | 477,315         | 759             | 473,170   | 0                        | (5,949)                    | (16,588)                        | 477,315         | 746   | 455,524   |  |  |              |  |
| 2002            | 0                                            | 35,058                     | 41,944                          | 779,284         | 3,471           | 859,757   | 0                        | 10,071                     | 35,623                          | 776,136         | 305   | 822,135   |  |  |              |  |
| 2003            | 0                                            | 28,167                     | (27,394)                        | 735,699         | 10,290          | 746,762   | 0                        | 9,075                      | (17,034)                        | 732,549         | 356   | 724,946   |  |  |              |  |
| 2004            | 0                                            | 31,034                     | (14,046)                        | 850,007         | 478             | 867,473   | 0                        | 9,120                      | (11,440)                        | 845,960         | 456   | 844,096   |  |  |              |  |
| 2005            | 0                                            | 29,111                     | (109,664)                       | 577,251         | 475             | 497,173   | 0                        | 21,155                     | (61,490)                        | 577,251         | 472   | 537,388   |  |  |              |  |
| 2006            | 0                                            | 15,351                     | (63,928)                        | 803,785         | 5,380           | 760,588   | 0                        | 9,626                      | (63,928)                        | 803,785         | 2,330 | 751,813   |  |  |              |  |
| 2007            | 0                                            | 15,323                     | 80,074                          | 897,235         | 5,380           | 998,012   | 0                        | 9,598                      | 80,074                          | 894,085         | 2,330 | 986,087   |  |  |              |  |
| 2008            | 0                                            | 15,433                     | 70                              | 1,015,268       | 5,380           | 1,036,151 | 0                        | 9,708                      | 70                              | 1,012,118       | 2,330 | 1,024,226 |  |  |              |  |
| 2009            | 0                                            | 12,345                     | (5,782)                         | 1,015,268       | 5,380           | 1,027,211 | 0                        | 6,060                      | (5,782)                         | 1,012,118       | 2,330 | 1,014,726 |  |  |              |  |
| 2010            | 0                                            | 12,345                     | 367                             | 1,015,268       | 5,380           | 1,033,360 | 0                        | 6,060                      | 367                             | 1,012,118       | 2,330 | 1,020,875 |  |  |              |  |
| 2011            | 0                                            | 12,566                     | 38,677                          | 1,136,412       | 5,380           | 1,193,035 | 0                        | 6,281                      | 38,677                          | 1,133,262       | 2,330 | 1,180,550 |  |  |              |  |
| 2012            | 0                                            | 12,465                     | (26,146)                        | 1,142,435       | 5,380           | 1,134,134 | 0                        | 6,180                      | (26,146)                        | 1,139,285       | 2,330 | 1,121,649 |  |  |              |  |
| 2013            | 0                                            | 12,530                     | 5,007                           | 1,142,435       | 5,380           | 1,165,352 | 0                        | 6,245                      | 5,007                           | 1,139,285       | 2,330 | 1,152,867 |  |  |              |  |
| 2014            | 0                                            | 12,671                     | 13,866                          | 1,142,435       | 5,380           | 1,174,352 | 0                        | 6,386                      | 13,866                          | 1,139,285       | 2,330 | 1,161,867 |  |  |              |  |
| 2015            | 0                                            | 12,736                     | 9,399                           | 1,142,435       | 5,380           | 1,169,950 | 0                        | 6,451                      | 9,399                           | 1,139,285       | 2,330 | 1,157,465 |  |  |              |  |
| 2016            | 0                                            | 12,673                     | (7,317)                         | 1,142,435       | 5,380           | 1,153,171 | 0                        | 6,388                      | (7,317)                         | 1,139,285       | 2,330 | 1,140,686 |  |  |              |  |
| 2017            | 0                                            | 12,839                     | 28,043                          | 1,142,435       | 5,380           | 1,188,697 | 0                        | 6,554                      | 28,043                          | 1,139,285       | 2,330 | 1,176,212 |  |  |              |  |
| 2018            | 0                                            | 12,890                     | (30,739)                        | 1,142,435       | 5,380           | 1,129,966 | 0                        | 6,605                      | (30,739)                        | 1,139,285       | 2,330 | 1,117,481 |  |  |              |  |
| 2019            | 0                                            | 12,788                     | 18,671                          | 1,142,435       | 5,380           | 1,179,274 | 0                        | 6,503                      | 18,671                          | 1,139,285       | 2,330 | 1,166,789 |  |  |              |  |
| 2020            | 0                                            | 12,829                     | 3,032                           | 1,142,435       | 5,380           | 1,163,676 | 0                        | 6,544                      | 3,032                           | 1,139,285       | 2,330 | 1,151,191 |  |  |              |  |
| 2021            | 0                                            | 12,913                     | 11,842                          | 1,142,435       | 5,380           | 1,172,570 | 0                        | 6,628                      | 11,842                          | 1,139,285       | 2,330 | 1,160,085 |  |  |              |  |
| 2022            | 0                                            | 12,913                     | (49)                            | 1,142,435       | 5,380           | 1,160,679 | 0                        | 6,628                      | (49)                            | 1,139,285       | 2,330 | 1,148,194 |  |  |              |  |
| 2023            | 0                                            | 12,905                     | (333)                           | 1,142,435       | 5,380           | 1,160,387 | 0                        | 6,620                      | (333)                           | 1,139,285       | 2,330 | 1,147,902 |  |  |              |  |
| 2024            | 0                                            | 12,842                     | (10,020)                        | 1,142,435       | 5,380           | 1,150,637 | 0                        | 6,557                      | (10,020)                        | 1,139,285       | 2,330 | 1,138,152 |  |  |              |  |
| 2025            | 0                                            | 12,821                     | (894)                           | 1,142,435       | 5,380           | 1,159,742 | 0                        | 6,536                      | (894)                           | 1,139,285       | 2,330 | 1,147,257 |  |  |              |  |
| 2026            | 0                                            | 12,868                     | 11,278                          | 1,142,435       | 5,380           | 1,171,961 | 0                        | 6,583                      | 11,278                          | 1,139,285       | 2,330 | 1,159,476 |  |  |              |  |
| 2027            | 0                                            | 12,850                     | (11,638)                        | 1,142,435       | 5,380           | 1,149,027 | 0                        | 6,565                      | (11,638)                        | 1,139,285       | 2,330 | 1,136,542 |  |  |              |  |
| 2028            | 0                                            | 12,890                     | 8,285                           | 1,142,435       | 5,380           | 1,168,990 | 0                        | 6,605                      | 8,285                           | 1,139,285       | 2,330 | 1,156,505 |  |  |              |  |
| 2029            | 0                                            | 12,823                     | (8,133)                         | 1,142,435       | 5,380           | 1,152,505 | 0                        | 6,538                      | (8,133)                         | 1,139,285       | 2,330 | 1,140,020 |  |  |              |  |
| 2030            | 0                                            | 12,912                     | 12,228                          | 1,142,435       | 5,380           | 1,172,955 | 0                        | 6,627                      | 12,228                          | 1,139,285       | 2,330 | 1,160,470 |  |  |              |  |
| 2031            | 0                                            | 12,758                     | (66,669)                        | 1,142,435       | 5,380           | 1,093,904 | 0                        | 6,473                      | (66,669)                        | 1,139,285       | 2,330 | 1,081,419 |  |  |              |  |
| 2032            | 0                                            | 12,451                     | 41,046                          | 1,142,435       | 5,380           | 1,201,312 | 0                        | 6,166                      | 41,046                          | 1,139,285       | 2,330 | 1,188,827 |  |  |              |  |
| 2033            | 0                                            | 12,667                     | (56,723)                        | 1,142,435       | 5,380           | 1,103,759 | 0                        | 6,382                      | (56,723)                        | 1,139,285       | 2,330 | 1,091,274 |  |  |              |  |
| 2034            | 0                                            | 12,244                     | 41,005                          | 1,142,435       | 5,380           | 1,201,064 | 0                        | 5,959                      | 41,005                          | 1,139,285       | 2,330 | 1,188,579 |  |  |              |  |
| 2035            | 0                                            | 11,461                     | (193,440)                       | 1,142,435       | 5,380           | 965,836   | 0                        | 5,176                      | (193,440)                       | 1,139,285       | 2,330 | 953,355   |  |  |              |  |

**TABLE B-6. Annual Water Quantities Conveyed Through Each Pumping and Power Recovery Plant of Project Transportation Facilities**

| (in acre-feet)       |                                                |                       |                             |         |                                                            |                       |                             |        |
|----------------------|------------------------------------------------|-----------------------|-----------------------------|---------|------------------------------------------------------------|-----------------------|-----------------------------|--------|
| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)                |                       |                             |         |                                                            |                       |                             |        |
|                      | Coastal Branch, California Aqueduct            |                       |                             |         |                                                            |                       |                             |        |
|                      | Las Perillas and<br>Badger Hill Pumping Plants |                       |                             |         | Devil's Den, Bluestone, and<br>Polonio Pass Pumping Plants |                       |                             |        |
|                      | Initial<br>Fill<br>Water                       | Operational<br>Losses | Water<br>Supply<br>Delivery | Total   | Initial<br>Fill<br>Water                                   | Operational<br>Losses | Water<br>Supply<br>Delivery | Total  |
|                      | [99]                                           | [100]                 | [101]                       | [102]   | [103]                                                      | [104]                 | [105]                       | [106]  |
| 1961                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1962                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1963                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1964                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1965                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1966                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1967                 | 0                                              | 0                     | 0                           | 0       | 0                                                          | 0                     | 0                           | 0      |
| 1968                 | 210                                            | 873                   | 79,039                      | 80,122  | 0                                                          | 0                     | 0                           | 0      |
| 1969                 | 0                                              | 1,042                 | 62,064                      | 63,106  | 0                                                          | 0                     | 0                           | 0      |
| 1970                 | 0                                              | 638                   | 83,649                      | 84,287  | 0                                                          | 0                     | 0                           | 0      |
| 1971                 | 0                                              | 3,455                 | 110,971                     | 114,426 | 0                                                          | 0                     | 0                           | 0      |
| 1972                 | 0                                              | 1,745                 | 121,755                     | 123,500 | 0                                                          | 0                     | 0                           | 0      |
| 1973                 | 0                                              | 5,479                 | 78,645                      | 84,124  | 0                                                          | 0                     | 0                           | 0      |
| 1974                 | 0                                              | 7,344                 | 78,174                      | 85,518  | 0                                                          | 0                     | 0                           | 0      |
| 1975                 | 0                                              | 5,819                 | 85,216                      | 91,035  | 0                                                          | 0                     | 0                           | 0      |
| 1976                 | 0                                              | 6,562                 | 90,058                      | 96,620  | 0                                                          | 0                     | 0                           | 0      |
| 1977                 | 0                                              | 5,777                 | 40,579                      | 46,356  | 0                                                          | 0                     | 0                           | 0      |
| 1978                 | 0                                              | 9,085                 | 92,604                      | 101,689 | 0                                                          | 0                     | 0                           | 0      |
| 1979                 | 0                                              | 10,896                | 123,155                     | 134,051 | 0                                                          | 0                     | 0                           | 0      |
| 1980                 | 0                                              | 9,449                 | 111,379                     | 120,828 | 0                                                          | 0                     | 0                           | 0      |
| 1981                 | 0                                              | 13,232                | 109,754                     | 122,986 | 0                                                          | 0                     | 0                           | 0      |
| 1982                 | 0                                              | 7,984                 | 95,776                      | 103,760 | 0                                                          | 0                     | 0                           | 0      |
| 1983                 | 0                                              | 5,710                 | 100,518                     | 106,228 | 0                                                          | 0                     | 0                           | 0      |
| 1984                 | 0                                              | 5,740                 | 126,387                     | 132,127 | 0                                                          | 0                     | 0                           | 0      |
| 1985                 | 0                                              | 7,563                 | 120,823                     | 128,386 | 0                                                          | 0                     | 0                           | 0      |
| 1986                 | 0                                              | 8,719                 | 131,599                     | 140,318 | 0                                                          | 0                     | 0                           | 0      |
| 1987                 | 0                                              | 11,363                | 128,080                     | 139,443 | 0                                                          | 0                     | 0                           | 0      |
| 1988                 | 0                                              | 12,831                | 120,969                     | 133,800 | 0                                                          | 0                     | 0                           | 0      |
| 1989                 | 0                                              | 11,454                | 116,801                     | 128,255 | 0                                                          | 0                     | 0                           | 0      |
| 1990                 | 0                                              | 13,022                | 109,802                     | 122,824 | 0                                                          | 0                     | 0                           | 0      |
| 1991                 | 0                                              | 5,802                 | 1,496                       | 7,298   | 0                                                          | 0                     | 0                           | 0      |
| 1992                 | 0                                              | 7,893                 | 79,635                      | 87,528  | 0                                                          | 0                     | 0                           | 0      |
| 1993                 | 0                                              | 9,282                 | 94,921                      | 104,203 | 0                                                          | 0                     | 0                           | 0      |
| 1994                 | 0                                              | 8,515                 | 87,158                      | 95,673  | 0                                                          | 0                     | 0                           | 0      |
| 1995                 | 0                                              | 6,986                 | 94,536                      | 101,522 | 0                                                          | 0                     | 0                           | 0      |
| 1996                 | 0                                              | 9,663                 | 114,630                     | 124,293 | 0                                                          | 0                     | 0                           | 0      |
| 1997                 | 527                                            | 8,343                 | 110,428                     | 119,298 | 527                                                        | 0                     | 8,538                       | 9,065  |
| 1998                 | 0                                              | 8,415                 | 109,400                     | 117,815 | 0                                                          | 0                     | 22,210                      | 22,210 |
| 1999                 | 0                                              | 2,453                 | 120,061                     | 122,514 | 0                                                          | 303                   | 23,880                      | 24,183 |
| 2000                 | 0                                              | (429)                 | 122,652                     | 122,223 | 0                                                          | 0                     | 26,703                      | 26,703 |
| 2001                 | 0                                              | (742)                 | 87,915                      | 87,173  | 0                                                          | 0                     | 23,229                      | 23,229 |
| 2002                 | 0                                              | 638                   | 99,783                      | 100,421 | 0                                                          | (151)                 | 31,991                      | 31,840 |
| 2003                 | 0                                              | 161                   | 101,113                     | 101,274 | 0                                                          | 284                   | 31,421                      | 31,705 |
| 2004                 | 0                                              | 492                   | 104,144                     | 104,636 | 0                                                          | 480                   | 33,870                      | 34,350 |
| 2005                 | 0                                              | 1,484                 | 103,178                     | 104,662 | 0                                                          | 573                   | 27,595                      | 28,168 |
| 2006                 | 0                                              | 802                   | 144,357                     | 145,159 | 0                                                          | 212                   | 60,192                      | 60,404 |
| 2007                 | 0                                              | 802                   | 147,244                     | 148,046 | 0                                                          | 212                   | 50,310                      | 50,522 |
| 2008                 | 0                                              | 802                   | 167,420                     | 168,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2009                 | 0                                              | 802                   | 167,420                     | 168,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2010                 | 0                                              | 802                   | 167,420                     | 168,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2011                 | 0                                              | 802                   | 167,443                     | 168,245 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2012                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2013                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2014                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2015                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2016                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2017                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2018                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2019                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2020                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2021                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2022                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2023                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2024                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2025                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2026                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2027                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2028                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2029                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2030                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2031                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2032                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2033                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2034                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |
| 2035                 | 0                                              | 802                   | 161,420                     | 162,222 | 0                                                          | 212                   | 70,486                      | 70,698 |

Sheet 9 of 9

**Tables B–7 through B–31 Follow**

**TABLE B-7. Reconciliation of Capital Costs Allocated to Water Supply and Power Generation**

(in thousands of dollars)

| Item                                     | Project Costs Allocated to Water Supply and Power Generation |                                            |                                                   |                                                                |                                                   |                                                            |                                   | Capital Costs Allocated to Other Purposes | Total State Water Project Capital Cost |
|------------------------------------------|--------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------|-----------------------------------|-------------------------------------------|----------------------------------------|
|                                          | Misc. Income Credited to Construction<br>a                   | Allowance for Future Price Escalation<br>b | Costs of Construction of Delivery Structures<br>c | Costs of Requested Excess Capacity and Future Enlargement<br>d | Capital Cost Component of Delta Water Charge<br>e | Capital Cost Component of Transportation Water Charge<br>f | Water Supply and Power Total<br>g |                                           |                                        |
|                                          | [1]                                                          | [2]                                        | [3]                                               | [4]                                                            | [5]                                               | [6]                                                        | [7]                               | [8]                                       | [9]                                    |
| CONSERVATION FACILITIES                  |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| Upper Feather Division                   |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| Frenchman Dam and Lake                   | 180                                                          | 0                                          | 0                                                 | 0                                                              | 599                                               | 0                                                          | 779                               | 2,888                                     | 3,667                                  |
| Grizzly Valley Dam and Lake Davis        | 65                                                           | 0                                          | 0                                                 | 0                                                              | 39                                                | 0                                                          | 104                               | 7,378                                     | 7,482                                  |
| Antelope Dam and Lake                    | 1                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 1                                 | 5,534                                     | 5,535                                  |
| Abbey Bridge Dam and Reservoir           | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 0                                 | 519                                       | 519                                    |
| Dixie Refuge Dam and Reservoir           | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 0                                 | 236                                       | 236                                    |
| Total, Upper Feather Division            | 246                                                          | 0                                          | 0                                                 | 0                                                              | 638                                               | 0                                                          | 884                               | 16,555                                    | 17,439                                 |
| Oroville Division                        |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| Multipurpose Facilities                  | 3,152                                                        | 0                                          | 0                                                 | 0                                                              | 366,418                                           | 0                                                          | 369,570                           | 86,922                                    | 456,492                                |
| Specific Power Facilities                | 29,463                                                       | 0                                          | 0                                                 | 0                                                              | 101,274                                           | 0                                                          | 130,737                           | 6,558                                     | 137,295                                |
| Total, Oroville Division                 | 32,615                                                       | 0                                          | 0                                                 | 0                                                              | 467,692                                           | 0                                                          | 500,307                           | 93,480                                    | 593,787                                |
| California Aqueduct                      |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| North San Joaquin Division               | 1,210                                                        | 0                                          | 0                                                 | 0                                                              | 79,995                                            | 0                                                          | 81,205                            | 2,880                                     | 84,085                                 |
| San Luis Division                        | 13,152                                                       | 0                                          | 0                                                 | 0                                                              | 104,953                                           | 0                                                          | 118,105                           | 3,827                                     | 121,932                                |
| Total, California Aqueduct               | 14,362                                                       | 0                                          | 0                                                 | 0                                                              | 184,948                                           | 0                                                          | 199,310                           | 6,707                                     | 206,017                                |
| Delta Facilities                         | 37,311                                                       | 0                                          | 0                                                 | 0                                                              | 286,347                                           | 0                                                          | 323,658                           | 42,268                                    | 365,926                                |
| Planning and Pre-operation               | 5,302                                                        | 0                                          | 0                                                 | 0                                                              | 72,731                                            | 0                                                          | 78,033                            | 0                                         | 78,033                                 |
| TOTAL, CONSERVATION FACILITIES           | 89,836                                                       | 0                                          | 0                                                 | 0                                                              | 1,012,356                                         | 0                                                          | 1,102,192                         | 159,010                                   | 1,261,202                              |
| TRANSPORTATION FACILITIES                |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| Upper Feather Division                   |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| Grizzly Valley Pipeline                  | 305                                                          | 0                                          | 190                                               | 0                                                              | 0                                                 | 342                                                        | 837                               | 0                                         | 837                                    |
| North Bay Aqueduct                       | 150                                                          | 0                                          | 676                                               | 0                                                              | 0                                                 | 104,619                                                    | 105,445                           | 0                                         | 105,445                                |
| South Bay Aqueduct                       | 107,766                                                      | 0                                          | 1,768                                             | 0                                                              | 0                                                 | 112,386                                                    | 221,920                           | 21,466                                    | 243,386                                |
| California Aqueduct                      |                                                              |                                            |                                                   |                                                                |                                                   |                                                            |                                   |                                           |                                        |
| North San Joaquin Division               | (46,894)                                                     | 0                                          | 81                                                | 0                                                              | 0                                                 | 188,009                                                    | 141,196                           | 6,417                                     | 147,613                                |
| San Luis Division                        | 8,187                                                        | 0                                          | 0                                                 | 0                                                              | 0                                                 | 133,799                                                    | 141,986                           | 6,513                                     | 148,499                                |
| South San Joaquin Division               | (23,154)                                                     | 0                                          | 3,733                                             | 2,093                                                          | 0                                                 | 293,172                                                    | 275,844                           | 17,329                                    | 293,173                                |
| Tehachapi Division                       | (4,955)                                                      | 0                                          | 0                                                 | 5,230                                                          | 0                                                 | 319,247                                                    | 319,522                           | 18,290                                    | 337,812                                |
| Mojave Division                          | (38,754)                                                     | 0                                          | 813                                               | 0                                                              | 0                                                 | 305,858                                                    | 267,917                           | 37,941                                    | 305,858                                |
| Santa Ana Division                       | (1,966)                                                      | 0                                          | 6,022                                             | 5,331                                                          | 0                                                 | 267,922                                                    | 277,309                           | 31,396                                    | 308,705                                |
| West Branch                              | (57,451)                                                     | 0                                          | 455                                               | 37                                                             | 0                                                 | 502,107                                                    | 445,148                           | 31,326                                    | 476,474                                |
| Coastal Branch                           | (182)                                                        | 0                                          | 181                                               | 0                                                              | 0                                                 | 494,908                                                    | 494,907                           | 0                                         | 494,907                                |
| Total, California Aqueduct               | (165,169)                                                    | 0                                          | 11,285                                            | 12,691                                                         | 0                                                 | 2,505,022                                                  | 2,363,829                         | 149,212                                   | 2,513,041                              |
| TOTAL, TRANSPORTATION FACILITIES         | (56,948)                                                     | 0                                          | 13,919                                            | 12,691                                                         | 0                                                 | 2,722,369                                                  | 2,692,031                         | 170,678                                   | 2,862,709                              |
| EAST BRANCH ENLARGEMENT                  | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 909,230                                                    | 909,230                           | 0                                         | 909,230                                |
| EAST BRANCH EXTENSION                    | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 306,403                                                    | 306,403                           | 0                                         | 306,403                                |
| COASTAL POWER ALLOCATION                 | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 30,708                                                     | 30,708                            | 0                                         | 30,708                                 |
| SAN JOAQUIN DRAINAGE FACILITIES          | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 0                                 | 117,320                                   | 117,320                                |
| OFF-AQUEDUCT POWER GENERATION FACILITIES | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 485,913                                                    | 485,913                           |                                           | 485,913                                |
| SMALL HYDRO POWER GENERATION FACILITIES  | 0                                                            | 0                                          | 0                                                 | 0                                                              | 14,095                                            | 83,273                                                     | 97,368                            | 0                                         | 97,368                                 |
| LAND PURCHASE - KERN WATER BANK          | 0                                                            | 0                                          | 0                                                 | 0                                                              | 34,686                                            | 0                                                          | 34,686                            | 0                                         | 34,686                                 |
| UNASSIGNED/MISCELLANEOUS                 | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 0                                 | 152,339                                   | 152,339                                |
| DAVIS- GRUNSKY                           | 0                                                            | 0                                          | 0                                                 | 0                                                              | 0                                                 | 0                                                          | 0                                 | 130,000                                   | 130,000                                |
| Subtotal                                 | 0                                                            | 0                                          | 0                                                 | 0                                                              | 48,781                                            | 1,815,527                                                  | 1,864,308                         | 399,659                                   | 2,263,967                              |
| TOTAL THROUGH 2015                       | 32,888                                                       | 0                                          | 13,919                                            | 12,691                                                         | 1,061,137                                         | 4,537,896                                                  | 5,658,531                         | 729,347                                   | 6,387,878                              |

a) Miscellaneous project receipts that are applied for accounting purposes to reduce the capital costs of the particular facilities.

b) These allowances are included for planning the future financial program, but not for determining current water charges.

c) See Table B-8.

d) See Table B-9.

e) See Table B-13.

f) See Table B-10. Mojave Division total reduced by \$83,273,000 for costs included in "Small Hydro Power Generation Facilities" line

**TABLE B-8. SWP Capital Costs of Requested Delivery Structures**

| Project Service Area and Water Supply Contractor                     | (in dollars)                             |               |               |                |               |          |                   |
|----------------------------------------------------------------------|------------------------------------------|---------------|---------------|----------------|---------------|----------|-------------------|
|                                                                      | Calendar Year Capital Costs <sup>a</sup> |               |               |                |               |          | Total             |
|                                                                      | 1952-2003                                | 2004          | 2005          | 2006           | 2007          | 2008     |                   |
|                                                                      | [1]                                      | [2]           | [3]           | [4]            | [5]           | [6]      | [7]               |
| <b>FEATHER RIVER AREA</b>                                            |                                          |               |               |                |               |          |                   |
| County of Butte                                                      | 136,546                                  | 0             | 0             | 0              | 0             | 0        | 136,546           |
| Plumas County Flood Control and Water Conservation District          | 645                                      | 0             | 0             | 8,000          | 1,000         | 0        | 9,645             |
| Thermalito Irrigation District <sup>b</sup>                          | 43,939                                   | 0             | 0             | 0              | 0             | 0        | 43,939            |
| <b>Subtotal</b>                                                      | <b>181,130</b>                           | <b>0</b>      | <b>0</b>      | <b>8,000</b>   | <b>1,000</b>  | <b>0</b> | <b>190,130</b>    |
| <b>NORTH BAY AREA</b>                                                |                                          |               |               |                |               |          |                   |
| Napa County Flood Control and Water Conservation District            | 13,590                                   | 0             | 0             | 0              | 0             | 0        | 13,590            |
| Solano County Water Agency                                           | 662,113                                  | 0             | 0             | 0              | 0             | 0        | 662,113           |
| <b>Subtotal</b>                                                      | <b>675,703</b>                           | <b>0</b>      | <b>0</b>      | <b>0</b>       | <b>0</b>      | <b>0</b> | <b>675,703</b>    |
| <b>SOUTH BAY AREA</b>                                                |                                          |               |               |                |               |          |                   |
| Alameda County Flood Control and Water Conservation District, Zone 7 | 378,023                                  | 6,142         | 11,515        | 34,800         | 10,000        | 0        | 440,480           |
| Alameda County Water District                                        | 239,579                                  | 0             | 0             | 0              | 0             | 0        | 239,579           |
| Santa Clara Valley Water District                                    | 21,500                                   | 0             | 0             | 0              | 0             | 0        | 21,500            |
| San Francisco Water Department <sup>b</sup>                          | 1,066,680                                | 0             | 0             | 0              | 0             | 0        | 1,066,680         |
| <b>Subtotal</b>                                                      | <b>1,705,782</b>                         | <b>6,142</b>  | <b>11,515</b> | <b>34,800</b>  | <b>10,000</b> | <b>0</b> | <b>1,768,239</b>  |
| <b>CENTRAL COASTAL AREA</b>                                          |                                          |               |               |                |               |          |                   |
| San Luis Obispo County Flood Control and Water Conservation District | 26,204                                   | 0             | 0             | 0              | 0             | 0        | 26,204            |
| Santa Barbara County Flood Control and Water Conservation District   | 67,058                                   | 0             | 0             | 0              | 0             | 0        | 67,058            |
| <b>Subtotal</b>                                                      | <b>93,262</b>                            | <b>0</b>      | <b>0</b>      | <b>0</b>       | <b>0</b>      | <b>0</b> | <b>93,262</b>     |
| <b>SAN JOAQUIN VALLEY AREA</b>                                       |                                          |               |               |                |               |          |                   |
| Castaic Lake Water Agency                                            | 82,567                                   | 0             | 0             | 0              | 0             | 0        | 82,567            |
| Dudley Ridge Water District                                          | 304,541                                  | 0             | 0             | 0              | 0             | 0        | 304,541           |
| Empire West Side Irrigation District                                 | 6,358                                    | 0             | 0             | 0              | 0             | 0        | 6,358             |
| Green Valley Water District <sup>c</sup>                             | 5,292                                    | 0             | 0             | 0              | 0             | 0        | 5,292             |
| Kern County Water Agency                                             | 3,017,846                                | 12,082        | 30,054        | 59,950         | 25,000        | 0        | 3,144,932         |
| Oak Flat Water District                                              | 46,882                                   | 0             | 0             | 18,400         | 5,000         | 0        | 70,282            |
| Tracy Golf and Country Club <sup>c</sup>                             | 6,932                                    | 0             | 0             | 0              | 0             | 0        | 6,932             |
| Tulare Lake Basin Water Storage District                             | 277,483                                  | 0             | 0             | 0              | 0             | 0        | 277,483           |
| Veterans Administration Cemetery (b)                                 | 3,342                                    | 0             | 0             | 0              | 0             | 0        | 3,342             |
| <b>Subtotal</b>                                                      | <b>3,751,243</b>                         | <b>12,082</b> | <b>30,054</b> | <b>78,350</b>  | <b>30,000</b> | <b>0</b> | <b>3,901,729</b>  |
| <b>SOUTHERN CALIFORNIA AREA</b>                                      |                                          |               |               |                |               |          |                   |
| Antelope Valley-East Kern Water Agency                               | 402,882                                  | 13,029        | 3,003         | 30,000         | 31,000        | 0        | 479,914           |
| Castaic Lake Water Agency                                            | 354,745                                  | 4,830         | 15,518        | 500            | 0             | 0        | 375,593           |
| Coachella Valley Water District                                      | 14,206                                   | 0             | 0             | 0              | 0             | 0        | 14,206            |
| Crestline-Lake Arrowhead Water Agency                                | 25,298                                   | 0             | 0             | 0              | 0             | 0        | 25,298            |
| Desert Water Agency                                                  | 23,438                                   | 0             | 0             | 0              | 0             | 0        | 23,438            |
| Littlerock Creek Irrigation District                                 | 23,732                                   | 0             | 0             | 0              | 0             | 0        | 23,732            |
| Mojave Water Agency                                                  | 211,765                                  | 0             | 0             | 0              | 0             | 0        | 211,765           |
| Palmdale Water District                                              | 34,173                                   | 0             | 0             | 0              | 0             | 0        | 34,173            |
| San Bernardino Valley Municipal Water District                       | 960,685                                  | 0             | 0             | 0              | 0             | 0        | 960,685           |
| San Gabriel Valley Municipal Water District                          | 131,052                                  | 0             | 0             | 0              | 0             | 0        | 131,052           |
| San Geronio Pass Water Agency                                        | 66,530                                   | 0             | 0             | 30,000         | 20,000        | 0        | 116,530           |
| The Metropolitan Water District of Southern California               | 4,814,078                                | 0             | 0             | 0              | 0             | 0        | 4,814,078         |
| Ventura County Flood Control District                                | 79,699                                   | 0             | 0             | 0              | 0             | 0        | 79,699            |
| <b>Subtotal</b>                                                      | <b>7,142,283</b>                         | <b>17,859</b> | <b>18,521</b> | <b>60,500</b>  | <b>51,000</b> | <b>0</b> | <b>7,290,163</b>  |
| <b>TOTAL</b>                                                         | <b>13,549,403</b>                        | <b>36,083</b> | <b>60,090</b> | <b>181,650</b> | <b>92,000</b> | <b>0</b> | <b>13,919,226</b> |

a) Approximate only, not to be construed as invoice amounts.

b) Not a SWP water supply contractor.

c) Not a SWP water supply contractor, but has contracted for water.

**TABLE B-9. Capital Costs of Requested Excess Peaking Capacity**

| (in dollars unless otherwise indicated) |                                                        |                           |                                   |                                 |         |                                                     | Sheet 1 of 2 |
|-----------------------------------------|--------------------------------------------------------|---------------------------|-----------------------------------|---------------------------------|---------|-----------------------------------------------------|--------------|
| Calendar Year                           | Total Advance Payments and                             | Total Incremental         | Over payment (+)                  | Annual Surplus Money Investment |         | Net Over or Underpayment with Interest <sup>c</sup> |              |
|                                         | Credits for Excess Capacity                            | Costs for Excess Capacity | or Under payment (-) <sup>a</sup> | Fund Interest Rate <sup>b</sup> |         |                                                     |              |
|                                         |                                                        |                           |                                   | Jan-Jun                         | Jul-Dec |                                                     |              |
|                                         | [1]                                                    | [2]                       | [3]                               | [4]                             | [5]     | [6]                                                 |              |
|                                         | THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA |                           |                                   |                                 |         |                                                     |              |
| 1965                                    | 0                                                      | 158,000                   | (158,000)                         | 3.968%                          | 4.184%  | (163,412)                                           |              |
| 1966                                    | 8,056,000                                              | 435,800                   | 7,620,200                         | 4.540%                          | 5.057%  | 7,701,103                                           |              |
| 1967                                    | 9,094,963                                              | 1,878,270                 | 7,216,693                         | 4.815%                          | 4.744%  | 15,524,533                                          |              |
| 1968                                    | 1,523,252                                              | 2,887,351                 | (1,364,099)                       | 5.330%                          | 5.540%  | 14,959,187                                          |              |
| 1969                                    | 8,310,651                                              | 3,059,310                 | 5,251,341                         | 5.946%                          | 6.389%  | 21,369,973                                          |              |
| 1970                                    | 3,426,736                                              | 2,397,102                 | 1,029,634                         | 7.071%                          | 7.125%  | 23,986,083                                          |              |
| 1971                                    | 1,086,045                                              | 1,146,648                 | (60,603)                          | 5.154%                          | 5.580%  | 25,238,017                                          |              |
| 1972                                    | (4,244,807)                                            | 487,394                   | (4,732,201)                       | 4.477%                          | 4.977%  | 21,532,965                                          |              |
| 1973                                    | (15,913,829)                                           | 25,041                    | (15,938,870)                      | 6.023%                          | 8.717%  | 6,014,116                                           |              |
| 1974                                    | 0                                                      | 37,775                    | (37,775)                          | 9.222%                          | 10.351% | 6,576,393                                           |              |
| 1975                                    | 0                                                      | 2,085                     | (2,085)                           | 7.089%                          | 6.791%  | 7,038,515                                           |              |
| 1976                                    | 0                                                      | 0                         | 0                                 | 6.048%                          | 6.021%  | 7,469,662                                           |              |
| 1977                                    | 0                                                      | 0                         | 0                                 | 5.788%                          | 6.182%  | 7,923,403                                           |              |
| 1978                                    | 0                                                      | 0                         | 0                                 | 7.171%                          | 8.096%  | 8,539,736                                           |              |
| 1979                                    | 0                                                      | 0                         | 0                                 | 8.979%                          | 9.671%  | 9,354,605                                           |              |
| 1980                                    | 0                                                      | 0                         | 0                                 | 11.500%                         | 11.500% | 10,461,314                                          |              |
| Total                                   | 11,339,011                                             | 12,514,776                | (1,175,765)                       | -                               | -       | 10,461,314                                          |              |
|                                         | SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT            |                           |                                   |                                 |         |                                                     |              |
| 1967                                    | 0                                                      | 25,730                    | (25,730)                          | 4.815%                          | 4.744%  | (26,611)                                            |              |
| 1968                                    | 184,422                                                | 44,053                    | 140,369                           | 5.330%                          | 5.540%  | 117,587                                             |              |
| 1969                                    | 49,052                                                 | 38,075                    | 10,977                            | 5.946%                          | 6.389%  | 136,751                                             |              |
| 1970                                    | 44,911                                                 | 17,959                    | 26,952                            | 7.071%                          | 7.125%  | 175,186                                             |              |
| 1971                                    | 61,588                                                 | 5,900                     | 55,688                            | 5.154%                          | 5.580%  | 242,927                                             |              |
| 1972                                    | (20,263)                                               | 6,835                     | (27,098)                          | 4.477%                          | 4.977%  | 226,230                                             |              |
| 1973                                    | (180,465)                                              | 0                         | (180,465)                         | 6.023%                          | 8.717%  | 49,198                                              |              |
| 1974                                    | 0                                                      | 0                         | 0                                 | 9.222%                          | 10.351% | 54,130                                              |              |
| 1975                                    | 0                                                      | 0                         | 0                                 | 7.089%                          | 6.791%  | 57,952                                              |              |
| 1976                                    | 0                                                      | 0                         | 0                                 | 6.048%                          | 6.021%  | 61,501                                              |              |
| 1977                                    | 0                                                      | 0                         | 0                                 | 5.788%                          | 6.182%  | 65,237                                              |              |
| 1978                                    | 0                                                      | 0                         | 0                                 | 7.171%                          | 8.096%  | 70,312                                              |              |
| 1979                                    | 0                                                      | 0                         | 0                                 | 8.979%                          | 9.671%  | 77,021                                              |              |
| 1980                                    | 0                                                      | 0                         | 0                                 | 11.500%                         | 11.500% | 86,133                                              |              |
| Total                                   | 139,245                                                | 138,552                   | 693                               | -                               | -       | 86,133                                              |              |
|                                         | ANTELOPE VALLEY-EAST KERN WATER AGENCY                 |                           |                                   |                                 |         |                                                     |              |
| 1968                                    | 85,495                                                 | 1,645                     | 83,850                            | 5.330%                          | 5.540%  | 86,962                                              |              |
| 1969                                    | 52,625                                                 | 6,326                     | 46,299                            | 5.946%                          | 6.389%  | 140,964                                             |              |
| 1970                                    | 101,648                                                | 15,076                    | 86,572                            | 7.071%                          | 7.125%  | 243,222                                             |              |
| 1971                                    | 34,062                                                 | 11,748                    | 22,314                            | 5.154%                          | 5.580%  | 279,673                                             |              |
| 1972                                    | (12,794)                                               | 2,018                     | (14,812)                          | 4.477%                          | 4.977%  | 277,552                                             |              |
| 1973                                    | (205,354)                                              | 308                       | (205,662)                         | 6.023%                          | 8.717%  | 77,288                                              |              |
| 1974                                    | 0                                                      | 96                        | (96)                              | 9.222%                          | 10.351% | 84,933                                              |              |
| 1975                                    | 0                                                      | 0                         | 0                                 | 7.089%                          | 6.791%  | 90,929                                              |              |
| 1976                                    | 0                                                      | 190                       | (190)                             | 6.048%                          | 6.021%  | 96,300                                              |              |
| 1977                                    | 0                                                      | 0                         | 0                                 | 5.788%                          | 6.182%  | 102,150                                             |              |
| 1978                                    | 0                                                      | 0                         | 0                                 | 7.171%                          | 8.096%  | 110,096                                             |              |
| 1979                                    | 0                                                      | 0                         | 0                                 | 8.979%                          | 9.671%  | 120,601                                             |              |
| 1980                                    | 0                                                      | 0                         | 0                                 | 11.500%                         | 11.500% | 134,869                                             |              |
| Total                                   | 55,682                                                 | 37,407                    | 18,275                            | -                               | -       | 134,869                                             |              |

a) Overpayment or underpayment for each calendar year - column [1] minus column [2].

b) Interest rates shown are annual rates. Interest is credited daily at applicable rates on funds deposited in the State's Surplus Money Investment Fund.

c) Amounts shown are end-of-year balances. Interest on overpayments is credited at applicable Surplus Money Investment Fund Interest Rates Shown in columns [4] and [5]. Interest on underpayments is charged at the 1980 Project Interest Rate of 4.584 percent.

**TABLE B-9. Capital Costs of Requested Excess Peaking Capacity**

| (in dollars)                                           |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                | Sheet 2 of 2 |
|--------------------------------------------------------|---------------------------------------------------------------------------|-----------|------------|-----------|-----------|-----------|-----------|-------------|--------------|--------------|-------|-----------|--------------|----------------|--------------|
| Reach<br>Number                                        | ANNUAL REQUIRED ADVANCE OF FUNDS                                          |           |            |           |           |           |           |             |              |              |       |           |              | Reach<br>Total |              |
|                                                        | Incremental Costs and Advance Payments by Calendar Year                   |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
|                                                        | 1965                                                                      | 1966      | 1967       | 1968      | 1969      | 1970      | 1971      | 1972        | 1973         | 1974         | 1975  | 1976      | 1981         |                |              |
|                                                        | [7]                                                                       | [8]       | [9]        | [10]      | [11]      | [12]      | [13]      | [14]        | [15]         | [16]         | [17]  | [18]      | [19]         | [20]           |              |
| THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| Incremental Costs                                      |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| 8C                                                     |                                                                           | 1,000     | 1,000      |           |           |           |           |             |              |              |       |           |              | 2,000          |              |
| 8D                                                     |                                                                           | 43,500    | 43,500     |           |           |           |           |             |              |              |       |           |              | 87,000         |              |
| 9                                                      |                                                                           | 27,000    | 27,000     | 13,500    |           |           |           |             |              |              |       |           |              | 67,500         |              |
| 10A                                                    |                                                                           | 29,700    | 29,700     | 14,800    |           |           |           |             |              |              |       |           |              | 74,200         |              |
| 11B                                                    | 10,100                                                                    | 18,300    | 18,300     | 9,200     |           |           |           |             |              |              |       |           |              | 55,900         |              |
| 12D                                                    | 1,800                                                                     |           | 19,300     | 25,800    | 12,900    |           |           |             |              |              |       |           |              | 59,800         |              |
| 12E                                                    | 1,800                                                                     |           | 12,400     | 18,800    | 10,800    |           |           |             |              |              |       |           |              | 43,800         |              |
| 13B                                                    |                                                                           |           | 12,600     | 37,800    | 31,600    |           |           |             |              |              |       |           |              | 82,000         |              |
| 14A                                                    | 2,500                                                                     | 500       | 11,100     | 80,216    | 107,504   | 124,069   | 37,519    | 6,413       | 381          | 87           |       |           |              | 370,289        |              |
| 14B                                                    | 1,200                                                                     | 1,800     |            | 19,100    | 19,100    | 12,800    |           |             |              |              |       |           |              | 54,000         |              |
| 14C                                                    | 1,800                                                                     | 900       |            | 13,500    | 13,500    | 9,000     |           |             |              |              |       |           |              | 38,700         |              |
| 15A                                                    | 700                                                                       |           | 14,000     | 66,947    | 133,357   | 128,099   | 54,821    | 5,327       | 946          | 2,076        |       |           |              | 406,273        |              |
| 16A                                                    | 700                                                                       |           | 18,900     | 137,894   | 182,000   | 211,608   | 133,927   | 26,203      | 5,767        | 6,156        |       |           |              | 723,155        |              |
| 17E                                                    |                                                                           | 51,500    | 444,600    | 537,247   | 860,024   | 998,985   | 699,281   | 193,286     | 17,947       | 29,456       | 2,085 |           |              | 3,834,411      |              |
| 17F                                                    | 109,100                                                                   | 261,600   | 261,600    | 261,600   | 261,600   | 239,500   |           |             |              |              |       |           |              | 1,395,000      |              |
| 25                                                     |                                                                           |           | 964,270    | 1,650,947 | 1,426,925 | 673,041   | 221,100   | 256,165     |              |              |       |           |              | 5,192,448      |              |
| 28J                                                    |                                                                           | 304,612   | 13,706     | 296,668   | 65,966    | 230,169   | 1,209,586 | 2,017,134   | 235,900      | 4,900        |       |           |              | 4,378,641      |              |
| Total                                                  | 129,700                                                                   | 740,412   | 1,891,976  | 3,184,019 | 3,125,276 | 2,627,271 | 2,356,234 | 2,504,528   | 260,941      | 42,675       | 2,085 |           |              | 16,865,117     |              |
| Current Adjustment                                     |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| 8C through 25                                          | 1. Advance Payments Applied to Incremental Costs Amendment 2 <sup>d</sup> |           |            |           |           |           |           |             |              |              |       |           |              | 12,514,776     |              |
|                                                        | 0                                                                         | 8,056,000 | 9,094,963  | 1,523,252 | 8,310,651 | 3,426,736 | 1,086,045 | (4,244,807) | (14,381,396) |              |       |           | (356,668)    |                |              |
| 28J                                                    | 2. Interest Credits-Amendment 2 <sup>e</sup>                              |           |            |           |           |           |           |             |              |              |       |           |              | (11,637,079)   |              |
|                                                        |                                                                           |           |            |           |           |           |           |             | (1,532,433)  |              |       |           | (10,104,646) |                |              |
|                                                        | 3. Advance Payments Applied to Incremental Costs Amendment 5 <sup>f</sup> |           |            |           |           |           |           |             |              |              |       |           |              | 4,378,641      |              |
|                                                        | 0                                                                         | 1,240,000 | 1,483,180  | 2,469,325 | (927,035) | 1,729,160 | 3,215,258 | 2,967,475   | 1,690,000    | (9,488,722)  |       |           |              |                |              |
|                                                        | 4. Interest Credits-Amendment 5 <sup>g</sup>                              |           |            |           |           |           |           |             |              |              |       |           |              | (2,721,803)    |              |
|                                                        |                                                                           |           |            |           |           |           |           |             |              | (2,721,803)  |       |           |              |                |              |
|                                                        | 5. Net Required Advance of Funds                                          |           |            |           |           |           |           |             |              |              |       |           |              | 2,524,535      |              |
|                                                        | 0                                                                         | 9,296,000 | 10,578,143 | 3,992,577 | 7,383,616 | 5,155,896 | 4,301,303 | (1,277,332) | (14,233,829) | (12,210,525) |       |           | (10,461,314) |                |              |
| SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT            |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| Incremental Costs                                      |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| 25                                                     |                                                                           |           | 25,730     | 44,053    | 38,075    | 17,959    | 5,900     | 6,835       |              |              |       |           |              | 138,552        |              |
|                                                        |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
|                                                        |                                                                           |           | 25,730     | 44,053    | 38,075    | 17,959    | 5,900     | 6,835       |              |              |       |           |              | 138,552        |              |
| Current Adjustments                                    |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
|                                                        | 1. Advance Payments Applied to Incremental Costs <sup>d</sup>             |           |            |           |           |           |           |             |              |              |       |           |              | 138,552        |              |
|                                                        |                                                                           |           | 0          | 184,422   | 49,052    | 44,911    | 61,588    | (20,263)    | (174,133)    |              |       |           | (7,025)      |                |              |
|                                                        | 2. Interest Credit                                                        |           |            |           |           |           |           |             |              |              |       |           |              | (85,440)       |              |
|                                                        |                                                                           |           |            |           |           |           |           |             | (6,332)      |              |       |           | (79,108)     |                |              |
|                                                        | 3. Net Required Advance of Funds                                          |           |            |           |           |           |           |             |              |              |       |           |              | 53,112         |              |
|                                                        | 0                                                                         |           | 184,422    | 49,052    | 44,911    | 61,588    | (20,263)  | (180,465)   |              |              |       |           | (86,133)     |                |              |
| ANTELOPE VALLEY-EAST KERN WATER AGENCY                 |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| Incremental Costs                                      |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
| 29A                                                    |                                                                           |           |            | 1,645     | 6,326     | 13,376    | 10,048    | 2,018       | 308          | 96           |       | 190       |              | 34,007         |              |
| 29F                                                    |                                                                           |           |            |           |           | 1,700     | 1,700     |             |              |              |       |           |              | 3,400          |              |
|                                                        |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
|                                                        |                                                                           |           |            | 1,645     | 6,326     | 15,076    | 11,748    | 2,018       | 308          | 96           |       | 190       |              | 37,407         |              |
| Current Adjustments                                    |                                                                           |           |            |           |           |           |           |             |              |              |       |           |              |                |              |
|                                                        | 1. Advance Payments Applied to Incremental Costs <sup>d</sup>             |           |            |           |           |           |           |             |              |              |       |           |              | 37,407         |              |
|                                                        |                                                                           |           | 85,495     | 52,625    | 101,648   | 34,062    | (12,794)  | (189,120)   | 0            |              | 0     | (34,509)  |              |                |              |
|                                                        | 2. Interest Credit                                                        |           |            |           |           |           |           |             |              |              |       |           |              | (116,594)      |              |
|                                                        |                                                                           |           |            |           |           |           |           | (16,234)    |              |              |       | (100,360) |              |                |              |
|                                                        | 3. Net Required Advance of Funds                                          |           |            |           |           |           |           |             |              |              |       |           |              | (79,187)       |              |
|                                                        |                                                                           |           | 85,495     | 52,625    | 101,648   | 34,062    | (12,794)  | (205,354)   | 0            |              | 0     | (134,869) |              |                |              |

d) Actual payments are shown for 1965 through 1976 with 1981 adjusted to reflect overpayments and underpayments without interest for prior years.

e) Interest for overpayments and underpayments under provisions of Amendment 2 of the contract.

f) Actual payments are shown for 1965 through 1973 with 1974 adjusted to reflect overpayments and underpayments without interest for prior years.

g) Interest for overpayments and underpayments under provisions of Amendment 5 of the contract.

h) Amounts in excess of incremental costs, under the provisions of the contract, reduce the Transportation Charge capital cost component of the Agency's Statement of Charges for January 1981.



**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed  
Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 1 of 8

| Calendar<br>Year | UPPER<br>FEATHER<br>DIVISION | NORTH BAY AQUEDUCT |                   |                  |                   |                    | SOUTH BAY AQUEDUCT |                  |                  |                   |
|------------------|------------------------------|--------------------|-------------------|------------------|-------------------|--------------------|--------------------|------------------|------------------|-------------------|
|                  |                              | Reach 1            | Reach 2           | Reach 3A         | Reach 3B          | Total              | Reach 1            | Reach 2          | Reach 4          | Reach 5           |
|                  | [1]                          | [2]                | [3]               | [4]              | [5]               | [6]                | [7]                | [8]              | [9]              | [10]              |
| 1952             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 97                 | 34               | 30               | 57                |
| 1953             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 477                | 166              | 144              | 297               |
| 1954             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 1,466              | 508              | 437              | 959               |
| 1955             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 1,944              | 674              | 560              | 1,266             |
| 1956             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 18,789             | 6,515            | 5,090            | 12,545            |
| 1957             | 0                            | 13,290             | 3,391             | 0                | 9,953             | 26,634             | 45,090             | 15,639           | 12,285           | 33,218            |
| 1958             | 2                            | 19,202             | 5,011             | 0                | 25,798            | 50,011             | 195,985            | 80,961           | 7,714            | 21,930            |
| 1959             | 14                           | 7,517              | 2,118             | 0                | 17,653            | 27,288             | 496,140            | 148,516          | 24,945           | 17,118            |
| 1960             | 28                           | 8,797              | 4,292             | 0                | 4,838             | 17,927             | 1,130,378          | 67,351           | 71,779           | 68,028            |
| 1961             | 10                           | 1,551              | 10,318            | 0                | 2,526             | 14,395             | 3,273,247          | 180,596          | 307,885          | 74,398            |
| 1962             | 32                           | 217                | (1,751)           | 0                | 414               | (1,120)            | 1,548,884          | 203,535          | 695,446          | 35,102            |
| 1963             | 51                           | 2,510              | (1,063)           | 0                | 983               | 2,430              | 480,716            | 69,182           | 2,284,291        | 206,587           |
| 1964             | 7,791                        | 39,879             | 12,046            | 0                | 21,934            | 73,859             | 2,549,118          | 15,903           | 181,900          | 264,410           |
| 1965             | 3,139                        | 72,793             | 17,900            | 0                | 170,361           | 261,054            | 807,505            | 153,454          | 85,425           | 447,830           |
| 1966             | (48)                         | 59,615             | 12,972            | 0                | 438,949           | 511,536            | 898,074            | 149,529          | 142,096          | 1,690,200         |
| 1967             | 47                           | 47,257             | 11,597            | 0                | 1,551,023         | 1,609,877          | 607,614            | 50,423           | 293,304          | 3,496,284         |
| 1968             | 51,573                       | 70,586             | 19,560            | 0                | 831,158           | 921,304            | 965,119            | 19,543           | 89,300           | 2,931,101         |
| 1969             | 234,232                      | 63,650             | 23,628            | 0                | 46,428            | 133,706            | 455,173            | 9,618            | 3,860            | 896,727           |
| 1970             | 16,227                       | 59,090             | 42,733            | 0                | 9,415             | 111,238            | 52,481             | 3,380            | 10,517           | 154,358           |
| 1971             | 27,204                       | 20,819             | 31,516            | 0                | 8,480             | 60,815             | 24,505             | 4,645            | 5,035            | 20,395            |
| 1972             | 9                            | 15,538             | 12,952            | 0                | 10,058            | 38,548             | 26,918             | 825              | 2,945            | 26,090            |
| 1973             | 25                           | 18,488             | 29,018            | 0                | 39,878            | 87,384             | 24,468             | 4,010            | 6,016            | 12,708            |
| 1974             | 45                           | 67,352             | 29,978            | 0                | 134,332           | 231,662            | 17,108             | 1,192            | 1,765            | 65,587            |
| 1975             | 21                           | 62,855             | 73,112            | 0                | 45,091            | 181,058            | 57,619             | 561              | 1,165            | 7,291             |
| 1976             | 51                           | 52,419             | 75,611            | 218              | 13,168            | 141,416            | 104,242            | 2,846            | 8,915            | 12,701            |
| 1977             | 28                           | 53,274             | 65,662            | 2,240            | 23,138            | 144,314            | 176,062            | 3,625            | 3,225            | 16,158            |
| 1978             | 38                           | 61,936             | 57,158            | 2,955            | 28,987            | 151,036            | 264,581            | 4,494            | 3,668            | 14,028            |
| 1979             | 23                           | 316,620            | 91,367            | 3,953            | 62,240            | 474,180            | 111,106            | 17,151           | 8,515            | 31,725            |
| 1980             | 26                           | 422,804            | 111,600           | 19,910           | 96,125            | 650,439            | 368,942            | 17,708           | 8,249            | 38,045            |
| 1981             | 34                           | 430,992            | 147,295           | (10,752)         | 43,157            | 610,692            | (145,428)          | 3,600            | 6,533            | 12,448            |
| 1982             | 11                           | 934,812            | 357,720           | (7,165)          | 134,408           | 1,419,775          | (44,778)           | 18,971           | 7,451            | 37,824            |
| 1983             | 19                           | 1,091,091          | 1,076,627         | 2,628            | 517,615           | 2,687,961          | 429,225            | 73,925           | 38,185           | 72,415            |
| 1984             | 26                           | 1,875,968          | 2,317,661         | 3,290            | 1,068,363         | 5,265,282          | 506,951            | 36,354           | 9,610            | 92,846            |
| 1985             | 29                           | 2,248,491          | 7,849,886         | 27,815           | 3,416,370         | 13,542,562         | 34,103             | 2,822            | 5,034            | 27,138            |
| 1986             | 31                           | 16,420,238         | 10,020,277        | 1,309,599        | 1,819,349         | 29,569,463         | 85,732             | 14,715           | 17,144           | 13,982            |
| 1987             | 32                           | 11,873,826         | 7,214,307         | 1,628,932        | 1,670,596         | 22,387,661         | 126,377            | 15,693           | 27,881           | 32,931            |
| 1988             | 55                           | 3,287,756          | 1,648,431         | 1,015,971        | 686,821           | 6,638,979          | 290,505            | 36,744           | 51,786           | 25,078            |
| 1989             | 44                           | 1,056,583          | 950,985           | 224,567          | 374,886           | 2,607,021          | 130,609            | 16,848           | 35,518           | 12,582            |
| 1990             | 63                           | 493,522            | 537,881           | 145,694          | 71,938            | 1,249,035          | 275,732            | 32,387           | 99,251           | 40,263            |
| 1991             | 54                           | 76,599             | 17,130            | 24,846           | 70,542            | 189,117            | 1,153,109          | 26,900           | 53,613           | 21,889            |
| 1992             | 42                           | 56,492             | 6,525             | 18,333           | 37,778            | 119,128            | 401,906            | 53,036           | 61,799           | 51,386            |
| 1993             | 30                           | 104,317            | 24,579            | 40,129           | 82,032            | 251,057            | 313,476            | 55,679           | 79,149           | 39,293            |
| 1994             | 14                           | 68,065             | 13,463            | 27,107           | 45,909            | 154,544            | (211,712)          | 29,017           | 362,585          | 36,350            |
| 1995             | 3                            | 26,002             | 5,920             | 7,337            | 20,617            | 59,876             | 265,751            | 42,516           | 48,189           | 21,436            |
| 1996             | 0                            | 14,790             | 3,334             | 6,614            | 14,606            | 39,344             | 139,573            | 13,049           | 25,751           | 10,677            |
| 1997             | 3                            | 67,264             | 35,545            | 38,585           | (13,571)          | 127,823            | 203,476            | 31,135           | 36,986           | 16,906            |
| 1998             | 7                            | 15,410             | 6,392             | 6,797            | 10,396            | 38,995             | 67,974             | 6,120            | 14,731           | 4,616             |
| 1999             | 2                            | 71,817             | 35,374            | 33,879           | 32,533            | 173,603            | 162,077            | 25,320           | 35,680           | 24,336            |
| 2000             | 24                           | 29,750             | 8,069             | 11,711           | 4,012             | 53,542             | 100,502            | 15,672           | 24,079           | 19,630            |
| 2001             | 20                           | 8,959              | 2,162             | 3,892            | 980               | 15,993             | 435,729            | 4,161            | 118,393          | 4,062             |
| 2002             | 14                           | 25,376             | 17,224            | 15,254           | 3,637             | 61,491             | 3,067,506          | 5,536            | 328,799          | 64,277            |
| 2003             | 0                            | 11,131             | 5,411             | 4,658            | 44,172            | 65,372             | 4,463,309          | 199,879          | 198,483          | 360,063           |
| 2004             | 0                            | 22,864             | 973               | 2,387            | 144,614           | 170,838            | 6,088,707          | 120,308          | 291,114          | 99,170            |
| 2005             | 0                            | 89,100             | 4                 | 9                | 33,810            | 122,923            | 6,791,256          | 119,278          | 260,833          | (1,426)           |
| 2006             | 209                          | 30,103             | 15,358            | 12,976           | 1,487,637         | 1,546,074          | 3,261,067          | 12,810           | 29,641           | 50,685            |
| 2007             | 201                          | 37,620             | 19,430            | 16,614           | 4,278,278         | 4,351,942          | 9,688,368          | 15,705           | 35,528           | 63,814            |
| 2008             | 196                          | 35,478             | 18,299            | 15,622           | 5,007,944         | 5,077,343          | 6,882,024          | 14,853           | 33,646           | 60,137            |
| 2009             | 190                          | 14,880             | 7,261             | 5,782            | 5,700             | 33,623             | 81,529             | 6,953            | 16,594           | 24,485            |
| 2010             | 190                          | 14,880             | 7,261             | 5,782            | 5,700             | 33,623             | 81,529             | 6,953            | 16,594           | 24,485            |
| 2011             | 190                          | 14,880             | 7,261             | 5,782            | 5,700             | 33,623             | 81,529             | 6,953            | 16,594           | 24,485            |
| 2012             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 0                  | 0                | 0                | 0                 |
| 2013             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 0                  | 0                | 0                | 0                 |
| 2014             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 0                  | 0                | 0                | 0                 |
| 2015             | 0                            | 0                  | 0                 | 0                | 0                 | 0                  | 0                  | 0                | 0                | 0                 |
| <b>TOTAL</b>     | <b>342,301</b>               | <b>42,107,115</b>  | <b>33,118,771</b> | <b>4,673,951</b> | <b>24,719,459</b> | <b>104,619,296</b> | <b>59,911,561</b>  | <b>2,296,476</b> | <b>6,653,680</b> | <b>11,985,406</b> |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed  
Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 2 of 8

| Calendar<br>Year | SOUTH BAY AQUEDUCT<br>(continued) |           |           |            |             | CALIFORNIA AQUEDUCT<br>NORTH SAN JOAQUIN DIVISION |            |            |             |
|------------------|-----------------------------------|-----------|-----------|------------|-------------|---------------------------------------------------|------------|------------|-------------|
|                  | Reach 6                           | Reach 7   | Reach 8   | Reach 9    | Total       | Reach 1                                           | Reach 2A   | Reach 2B   | Subtotal    |
|                  | [11]                              | [12]      | [13]      | [14]       | [15]        | [16]                                              | [17]       | [18]       | [19]        |
| 1952             | 8                                 | 66        | 72        | 132        | 496         | 4,012                                             | 3,279      | 1,499      | 8,790       |
| 1953             | 38                                | 327       | 336       | 640        | 2,425       | 10,559                                            | 8,589      | 3,964      | 23,112      |
| 1954             | 123                               | 1,005     | 1,003     | 1,954      | 7,455       | 13,796                                            | 11,163     | 5,179      | 30,138      |
| 1955             | 160                               | 1,293     | 1,149     | 2,454      | 9,500       | 7,370                                             | 5,952      | 2,760      | 16,082      |
| 1956             | 1,559                             | 11,959    | 11,043    | 28,372     | 95,872      | 9,880                                             | 5,020      | 2,398      | 17,298      |
| 1957             | 3,659                             | 28,675    | 27,385    | 563,114    | 729,065     | 11,953                                            | 5,456      | 2,612      | 20,021      |
| 1958             | 2,243                             | 17,872    | 17,385    | 560,904    | 904,994     | 18,585                                            | 17,191     | 7,994      | 43,770      |
| 1959             | 357                               | 3,200     | 3,568     | 149,874    | 843,718     | 123,170                                           | 100,306    | 45,510     | 268,986     |
| 1960             | 1,102                             | 2,944     | 4,498     | 359,749    | 1,705,829   | 191,408                                           | 102,136    | 48,968     | 342,512     |
| 1961             | 4,726                             | 18,325    | 22,765    | (1,367)    | 3,880,575   | 153,765                                           | 195,947    | 42,843     | 392,555     |
| 1962             | 17,295                            | 160,939   | 178,242   | 209,042    | 3,048,485   | 612,258                                           | 491,225    | 168,218    | 1,271,701   |
| 1963             | 265,414                           | 1,250,386 | 939,832   | 129,902    | 5,626,310   | 1,993,284                                         | 1,525,734  | 684,095    | 4,203,113   |
| 1964             | 100,603                           | 1,716,371 | 2,327,770 | 2,947,522  | 10,103,597  | 4,674,280                                         | 2,369,858  | 700,074    | 7,744,212   |
| 1965             | 42,345                            | 368,476   | 637,266   | 1,921,844  | 4,464,145   | 5,877,189                                         | 6,873,699  | 2,975,719  | 15,726,607  |
| 1966             | 17,663                            | 34,915    | 140,350   | 777,887    | 3,850,714   | 8,553,362                                         | 14,112,820 | 5,677,099  | 28,343,281  |
| 1967             | (41,567)                          | 137,856   | 147,183   | 379,764    | 5,070,861   | 9,678,607                                         | 10,672,113 | 6,646,739  | 26,997,459  |
| 1968             | 84,553                            | 2,130     | 68,057    | 253,152    | 4,412,955   | 6,392,664                                         | 891,681    | 1,303,186  | 8,587,531   |
| 1969             | 4,279                             | 11,572    | 162,300   | 32,000     | 1,575,529   | 3,542,767                                         | 792,259    | 443,924    | 4,778,950   |
| 1970             | 2,487                             | 6,820     | 20,086    | (15,718)   | 234,411     | 2,236,607                                         | 149,692    | 115,578    | 2,501,877   |
| 1971             | 4,350                             | 6,923     | 17,750    | 39,084     | 122,687     | 98,138                                            | 215,512    | 69,410     | 383,060     |
| 1972             | 1,084                             | 203       | 4,800     | 32,199     | 95,064      | 159,608                                           | 43,721     | 7,744      | 211,073     |
| 1973             | 288                               | 989       | 7,449     | 9,693      | 65,621      | 105,581                                           | 25,496     | 22,418     | 153,495     |
| 1974             | 527                               | 6,020     | 30,628    | 11,433     | 134,260     | 177,700                                           | 16,627     | 45,707     | 240,034     |
| 1975             | 126                               | 679       | 1,086     | 3,464      | 71,991      | 239,144                                           | 14,680     | 169,676    | 423,500     |
| 1976             | 701                               | 3,529     | 8,362     | 26,186     | 167,482     | 641,860                                           | 45,533     | 65,943     | 753,336     |
| 1977             | 270                               | 1,310     | 8,651     | 24,938     | 234,239     | 274,381                                           | 20,283     | 22,568     | 317,232     |
| 1978             | 231                               | 1,204     | 1,631     | 17,123     | 306,960     | 801,265                                           | 36,221     | 9,714      | 847,200     |
| 1979             | 1,367                             | 1,721     | 2,134     | 7,322      | 181,041     | 1,051,792                                         | 59,695     | 26,106     | 1,137,593   |
| 1980             | 1,321                             | 1,718     | 2,182     | 7,102      | 445,267     | 4,173,603                                         | 96,760     | 38,789     | 4,309,152   |
| 1981             | 308                               | 1,462     | 1,398     | 5,077      | (114,602)   | (502,921)                                         | 1,487,516  | 38,451     | 1,023,046   |
| 1982             | 716                               | 1,561     | 1,746     | 6,074      | 29,565      | 700,738                                           | 46,501     | 22,308     | 769,547     |
| 1983             | 407                               | 5,721     | 8,143     | 23,367     | 651,388     | 706,104                                           | 84,435     | 211,619    | 1,002,158   |
| 1984             | 269                               | 1,853     | 1,667     | 13,301     | 662,851     | 1,559,539                                         | 41,352     | 48,478     | 1,649,369   |
| 1985             | 402                               | 1,657     | 2,129     | 6,750      | 80,035      | 677,955                                           | 24,812     | 19,404     | 722,171     |
| 1986             | 1,119                             | 2,744     | 3,313     | 12,234     | 150,983     | 398,788                                           | 63,830     | 35,420     | 498,038     |
| 1987             | 1,496                             | 3,081     | 3,560     | 21,842     | 232,861     | 799,672                                           | 88,945     | 41,659     | 930,276     |
| 1988             | 5,706                             | 6,689     | 7,603     | 33,728     | 457,839     | 2,898,156                                         | (128,051)  | (56,448)   | 2,713,657   |
| 1989             | 2,641                             | 3,878     | 4,755     | 14,489     | 221,320     | 6,898,872                                         | 346,589    | 173,993    | 7,419,454   |
| 1990             | 5,092                             | 19,899    | 36,584    | 87,796     | 597,004     | 13,483,785                                        | 112,002    | 2,446,232  | 16,042,019  |
| 1991             | 1,942                             | 5,059     | 7,357     | 31,682     | 1,301,551   | 13,914,632                                        | 133,121    | 114,981    | 14,162,734  |
| 1992             | 1,184                             | 2,042     | 2,250     | 35,464     | 609,067     | 6,260,482                                         | 241,456    | 239,437    | 6,741,375   |
| 1993             | 3,618                             | 6,028     | 8,873     | 42,200     | 548,316     | 2,542,869                                         | 257,330    | 200,072    | 3,000,271   |
| 1994             | 2,897                             | 4,781     | 5,346     | 89,991     | 319,255     | 1,145,666                                         | 148,396    | 88,357     | 1,382,419   |
| 1995             | 11,556                            | 3,635     | 14,769    | 24,750     | 432,602     | 1,462,211                                         | 217,940    | 131,995    | 1,812,146   |
| 1996             | 3,092                             | 2,271     | 2,699     | 12,522     | 209,634     | 874,227                                           | 74,153     | 41,215     | 989,595     |
| 1997             | 1,454                             | 4,141     | 3,655     | 20,589     | 318,342     | 2,064,446                                         | 146,851    | 84,303     | 2,295,600   |
| 1998             | 363                               | 1,134     | (6,005)   | 5,776      | 94,709      | 729,475                                           | 33,695     | 16,670     | 779,840     |
| 1999             | 1,530                             | 3,283     | 12,698    | 31,555     | 296,479     | 2,208,773                                         | 88,790     | 90,527     | 2,388,090   |
| 2000             | 2,400                             | 4,907     | 5,279     | 10,611     | 183,080     | (706,522)                                         | 57,209     | 39,982     | (609,331)   |
| 2001             | 91,681                            | 68,598    | 403,873   | 1,189,678  | 2,316,175   | 371,372                                           | 89,809     | 7,549      | 468,730     |
| 2002             | 229,369                           | 453,007   | 1,107,226 | 2,976,962  | 8,232,682   | 388,747                                           | 42,554     | 21,259     | 452,560     |
| 2003             | 67,127                            | 509,412   | 477,150   | 1,407,084  | 7,682,507   | 178,078                                           | 18,416     | 10,537     | 207,031     |
| 2004             | 3,176                             | 2,933     | 39,088    | 3,276,225  | 9,920,721   | 878,781                                           | 7,621      | 73,527     | 959,929     |
| 2005             | 5,237                             | 5,239     | 4,803     | 731,389    | 7,916,609   | 226,629                                           | 11,640     | 84,213     | 322,482     |
| 2006             | 1,892                             | 3,535     | 3,179     | 12,542     | 3,375,351   | 535,047                                           | 68,719     | 1,198,638  | 1,802,404   |
| 2007             | 2,718                             | 4,522     | 4,035     | 14,606     | 9,829,296   | 1,168,391                                         | 80,838     | 2,872,533  | 4,121,762   |
| 2008             | 2,527                             | 4,264     | 3,808     | 13,900     | 7,015,159   | 1,130,011                                         | 76,827     | 1,703,897  | 2,910,735   |
| 2009             | 433                               | 1,757     | 1,648     | 7,976      | 141,375     | 259,632                                           | 42,324     | 16,952     | 318,908     |
| 2010             | 433                               | 1,757     | 1,648     | 7,976      | 141,375     | 259,632                                           | 42,324     | 16,952     | 318,908     |
| 2011             | 433                               | 1,757     | 1,648     | 7,976      | 141,375     | 259,632                                           | 42,324     | 16,952     | 318,908     |
| 2012             | 0                                 | 0         | 0         | 0          | 0           | 0                                                 | 0          | 0          | 0           |
| 2013             | 0                                 | 0         | 0         | 0          | 0           | 0                                                 | 0          | 0          | 0           |
| 2014             | 0                                 | 0         | 0         | 0          | 0           | 0                                                 | 0          | 0          | 0           |
| 2015             | 0                                 | 0         | 0         | 0          | 0           | 0                                                 | 0          | 0          | 0           |
| TOTAL            | 970,530                           | 4,942,034 | 6,970,888 | 18,655,877 | 112,386,452 | 115,601,487                                       | 42,998,916 | 29,408,098 | 188,008,501 |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed  
Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 3 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |             |             |           |             |             |                            |            |            |
|------------------|---------------------------------|-------------|-------------|-----------|-------------|-------------|----------------------------|------------|------------|
|                  | SAN LUIS DIVISION               |             |             |           |             |             | SOUTH SAN JOAQUIN DIVISION |            |            |
|                  | Reach 3                         | Reach 4     | Reach 5     | Reach 6   | Reach 7     | Subtotal    | Reach 8C                   | Reach 8D   | Reach 9    |
|                  | [20]                            | [21]        | [22]        | [23]      | [24]        | [25]        | [26]                       | [27]       | [28]       |
| 1952             | 2,492                           | 3,549       | 3,987       | 1,010     | 1,390       | 12,428      | 13                         | 727        | 1,109      |
| 1953             | 6,999                           | 10,144      | 10,986      | 2,834     | 3,869       | 34,832      | 45                         | 2,671      | 4,185      |
| 1954             | 8,704                           | 12,545      | 13,693      | 3,520     | 4,766       | 43,228      | 50                         | 2,719      | 4,026      |
| 1955             | 4,273                           | 6,055       | 6,813       | 1,728     | 2,325       | 21,194      | 19                         | 888        | 1,100      |
| 1956             | 3,295                           | 5,600       | 5,857       | 1,445     | 3,556       | 19,753      | 98                         | 3,850      | 4,376      |
| 1957             | 3,543                           | 6,115       | 6,357       | 1,565     | 3,998       | 21,578      | 234                        | 10,604     | 13,209     |
| 1958             | 11,927                          | 19,393      | 22,037      | 5,509     | 7,512       | 66,378      | 375                        | 19,033     | 25,073     |
| 1959             | 21,979                          | 37,358      | 39,689      | 9,813     | 19,679      | 128,518     | 436                        | 20,578     | 25,697     |
| 1960             | 207,025                         | 45,419      | 41,044      | 12,074    | 37,633      | 343,195     | 1,673                      | 44,565     | 25,290     |
| 1961             | 184,443                         | 292,639     | 170,559     | 38,338    | 70,068      | 756,047     | 3,949                      | 75,726     | 30,852     |
| 1962             | 495,836                         | 549,984     | 252,698     | 22,397    | 26,967      | 1,347,882   | 6,131                      | 159,481    | 62,375     |
| 1963             | 2,772,189                       | 2,034,351   | 2,498,712   | 66,353    | 30,647      | 7,402,252   | 5,861                      | 161,252    | 81,343     |
| 1964             | 4,348,311                       | 4,932,301   | 1,053,227   | 161,422   | 251,461     | 10,746,722  | 4,014                      | 90,622     | 117,907    |
| 1965             | 3,860,997                       | 5,688,252   | 2,869,931   | 1,072,111 | 667,768     | 14,159,059  | 15,049                     | 491,042    | 564,036    |
| 1966             | 2,312,372                       | 8,527,843   | 5,765,798   | 4,230,221 | 7,708,334   | 28,544,568  | 201,274                    | 5,197,322  | 2,539,278  |
| 1967             | (44,527)                        | 2,062,305   | 6,942,522   | 222,885   | 6,675,398   | 15,858,583  | 212,285                    | 4,982,844  | 3,363,650  |
| 1968             | 119,884                         | 395,689     | 973,956     | 179,917   | 461,031     | 2,130,477   | 64,234                     | 611,192    | 940,074    |
| 1969             | (6,065)                         | 126,946     | 98,492      | 107,486   | 160,668     | 487,527     | 58,960                     | 116,146    | 85,130     |
| 1970             | 32,387                          | (20,243)    | 105,385     | (827,457) | 1,215,966   | 506,038     | 23,011                     | 106,810    | 84,116     |
| 1971             | 99,945                          | 230,624     | 305,227     | 26,995    | 341,010     | 1,003,801   | 8,813                      | 33,099     | 23,088     |
| 1972             | 15,990                          | 90,852      | 17,053      | 14,621    | 281,343     | 419,859     | 10,818                     | 13,349     | 16,603     |
| 1973             | 6,753                           | 103,707     | 41,549      | 13,810    | 41,427      | 207,246     | 5,145                      | 11,089     | 13,249     |
| 1974             | 6,618                           | 117,165     | 55,978      | 16,199    | 71,796      | 267,756     | 5,434                      | 24,433     | 16,567     |
| 1975             | 18,921                          | 107,275     | 23,671      | 8,797     | 152,574     | 311,238     | 5,424                      | 15,960     | 12,966     |
| 1976             | 17,485                          | 79,554      | 13,041      | 5,138     | 41,687      | 156,905     | 19,931                     | 76,280     | 62,164     |
| 1977             | 35,707                          | 84,669      | 9,412       | 4,028     | 9,655       | 143,471     | 21,096                     | 70,005     | 97,952     |
| 1978             | 8,539                           | 428,395     | 7,006       | 3,536     | 6,994       | 454,470     | 7,584                      | 40,453     | 17,395     |
| 1979             | (35,394)                        | 543,225     | 19,463      | 9,485     | (242,253)   | 294,526     | 10,474                     | 6,181      | 6,227      |
| 1980             | 66,622                          | 3,450,695   | 191,307     | 75,209    | 185,384     | 3,969,217   | 2,158                      | 17,492     | 17,706     |
| 1981             | 28,491                          | (2,244,127) | (44,017)    | (15,456)  | 918,984     | (1,356,125) | 1,151                      | 9,642      | 9,541      |
| 1982             | 100,629                         | (1,616,569) | 20,184      | 10,359    | 3,525,738   | 2,040,341   | 2,469                      | 8,283      | 6,956      |
| 1983             | 75,639                          | 33,881      | 11,785      | 6,638     | 1,811,638   | 1,939,581   | 7,955                      | 13,782     | 11,090     |
| 1984             | 31,748                          | 87,083      | 26,712      | 12,754    | 3,053,662   | 3,211,959   | 26,489                     | 9,959      | 6,268      |
| 1985             | 53,251                          | 56,732      | 13,685      | 6,934     | 582,910     | 713,512     | 7,220                      | 9,762      | 7,688      |
| 1986             | 73,979                          | 201,509     | 50,668      | 19,223    | 1,282,469   | 1,627,848   | 8,902                      | 25,011     | 20,503     |
| 1987             | (7,829)                         | 116,268     | 40,009      | 15,946    | 518,349     | 682,743     | 12,744                     | 18,927     | 56,042     |
| 1988             | (149,385)                       | 224,154     | (406,398)   | (137,353) | 923,622     | 454,640     | 9,833                      | (119,741)  | (60,639)   |
| 1989             | 39,652                          | 594,894     | 232,852     | 80,090    | 575,855     | 1,523,343   | 5,279                      | 91,501     | 278,061    |
| 1990             | 39,270                          | 259,895     | 79,589      | 29,606    | 461,219     | 869,579     | 5,814                      | 41,345     | 2,016,434  |
| 1991             | 4,916,134                       | 397,959     | 98,847      | 35,860    | 511,519     | 5,960,319   | 4,588                      | 43,140     | 41,348     |
| 1992             | (757,001)                       | 545,729     | 211,854     | 74,544    | 396,398     | 471,524     | 3,546                      | 103,695    | 109,225    |
| 1993             | 110,233                         | 724,929     | 186,271     | 70,815    | 720,283     | 1,812,531   | 15,016                     | 101,634    | 90,929     |
| 1994             | 1,151,976                       | 288,018     | 63,862      | 27,812    | 710,770     | 2,242,438   | 6,770                      | 42,455     | 40,696     |
| 1995             | 285,776                         | 441,479     | 130,761     | 58,640    | 1,914,186   | 2,830,842   | 12,548                     | 49,963     | 43,251     |
| 1996             | 31,942                          | (110,471)   | 34,529      | 12,219    | 588,712     | 556,931     | 6,444                      | 29,863     | 27,050     |
| 1997             | 73,224                          | 513,793     | (277,781)   | 42,881    | 5,016,215   | 5,368,332   | 11,497                     | 49,111     | 43,799     |
| 1998             | 19,692                          | 304,115     | 34,319      | 16,542    | 2,819,556   | 3,194,224   | 2,562                      | 11,115     | 8,955      |
| 1999             | 18,187                          | 158,843     | 99,981      | 41,672    | 1,901,201   | 2,219,884   | 5,706                      | 25,138     | 23,475     |
| 2000             | 101,618                         | 373,593     | 77,891      | 36,152    | 1,138,744   | 1,727,998   | 3,922                      | 23,516     | 29,216     |
| 2001             | (10,513)                        | (47,832)    | 518,046     | (3,777)   | 59,373      | 515,297     | 2,279                      | 16,521     | 20,761     |
| 2002             | 12,237                          | 23,712      | 6,078,355   | 3,222     | (2,455,712) | 3,661,814   | 3,626                      | 43,500     | 19,786     |
| 2003             | 8,863                           | 78,058      | (5,374,663) | 7,414     | 2,178,907   | (3,101,421) | 2,127                      | 17,675     | 15,759     |
| 2004             | (15,306)                        | (18,715)    | (55,386)    | (4,006)   | (463,578)   | (556,991)   | 22,527                     | 3,056      | 2,185      |
| 2005             | 261                             | (9,056)     | 110,561     | (2,763)   | 982,735     | 1,081,738   | 26,296                     | 0          | 0          |
| 2006             | 50,316                          | 504,426     | 63,461      | 31,691    | 93,337      | 743,231     | 4,116                      | 21,572     | 21,434     |
| 2007             | 177,611                         | 894,201     | 86,954      | 41,652    | 102,944     | 1,303,362   | 5,172                      | 31,382     | 30,106     |
| 2008             | 183,909                         | 713,879     | 93,667      | 44,176    | 104,627     | 1,140,258   | 5,442                      | 34,236     | 32,595     |
| 2009             | 27,741                          | 190,182     | 38,070      | 21,795    | 75,769      | 353,557     | 2,905                      | 11,643     | 12,384     |
| 2010             | 27,741                          | 190,182     | 38,070      | 21,795    | 75,769      | 353,557     | 2,905                      | 11,643     | 12,384     |
| 2011             | 27,741                          | 190,182     | 38,070      | 21,795    | 75,769      | 353,557     | 2,905                      | 11,643     | 12,384     |
| 2012             | 0                               | 0           | 0           | 0         | 0           | 0           | 0                          | 0          | 0          |
| 2013             | 0                               | 0           | 0           | 0         | 0           | 0           | 0                          | 0          | 0          |
| 2014             | 0                               | 0           | 0           | 0         | 0           | 0           | 0                          | 0          | 0          |
| 2015             | 0                               | 0           | 0           | 0         | 0           | 0           | 0                          | 0          | 0          |
| TOTAL            | 21,315,077                      | 34,033,332  | 23,886,258  | 6,119,861 | 48,444,623  | 133,799,151 | 935,343                    | 13,197,385 | 11,246,409 |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed  
Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 4 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued)        |            |            |           |            |             |           |           |             |
|------------------|----------------------------------------|------------|------------|-----------|------------|-------------|-----------|-----------|-------------|
|                  | SOUTH SAN JOAQUIN DIVISION (continued) |            |            |           |            |             |           |           |             |
|                  | Reach 10A                              | Reach 11B  | Reach 12D  | Reach 12E | Reach 13B  | Reach 14A   | Reach 14B | Reach 14C | Reach 15A   |
|                  | [29]                                   | [30]       | [31]       | [32]      | [33]       | [34]        | [35]      | [36]      | [37]        |
| 1952             | 695                                    | 1,279      | 1,980      | 995       | 1,663      | 794         | 212       | 212       | 1,911       |
| 1953             | 2,569                                  | 4,790      | 7,480      | 3,745     | 6,236      | 2,599       | 733       | 741       | 7,016       |
| 1954             | 2,821                                  | 4,855      | 7,565      | 3,792     | 6,319      | 2,880       | 810       | 817       | 7,073       |
| 1955             | 1,097                                  | 1,557      | 2,404      | 1,211     | 2,025      | 1,183       | 325       | 327       | 2,253       |
| 1956             | 4,428                                  | 6,223      | 9,233      | 4,737     | 8,054      | 7,026       | 1,638     | 1,584     | 9,939       |
| 1957             | 13,269                                 | 18,772     | 29,082     | 14,615    | 24,411     | 15,651      | 3,834     | 3,864     | 26,871      |
| 1958             | 25,086                                 | 48,191     | 78,564     | 39,087    | 61,715     | 33,726      | 12,330    | 11,813    | 49,499      |
| 1959             | 25,787                                 | 67,246     | 107,781    | 53,836    | 86,478     | 64,824      | 22,102    | 21,828    | 70,838      |
| 1960             | 47,492                                 | 66,317     | 77,936     | 39,867    | 63,517     | 84,363      | 23,260    | 22,305    | 73,305      |
| 1961             | 68,505                                 | 46,073     | 88,274     | 51,457    | 28,015     | 242,753     | 91,290    | 65,565    | 150,205     |
| 1962             | 57,705                                 | 56,056     | 69,189     | 44,851    | 49,179     | 208,180     | 61,489    | 47,608    | 133,653     |
| 1963             | 52,585                                 | 91,914     | 173,985    | 86,405    | 67,733     | 425,626     | 104,436   | 77,970    | 102,072     |
| 1964             | 124,014                                | 333,621    | 291,013    | 174,469   | 86,271     | 1,093,795   | 684,005   | 485,033   | 571,173     |
| 1965             | 622,257                                | 1,053,029  | 1,524,848  | 1,044,851 | 196,487    | 3,385,205   | 1,655,024 | 1,436,258 | 476,830     |
| 1966             | 2,800,056                              | 3,709,779  | 673,429    | 466,228   | 418,141    | 4,916,319   | 974,862   | 724,354   | 1,829,852   |
| 1967             | 3,652,342                              | 4,636,627  | 1,881,333  | 1,244,265 | 1,238,428  | 2,788,299   | 525,653   | 400,183   | 1,721,304   |
| 1968             | 1,025,969                              | 1,323,302  | 4,726,074  | 3,145,775 | 8,343,706  | 10,210,266  | 1,330,361 | 1,405,117 | 7,522,015   |
| 1969             | 145,111                                | 229,185    | 706,272    | 529,080   | 3,704,065  | 15,112,041  | 1,223,457 | 1,134,395 | 9,523,012   |
| 1970             | 74,366                                 | 85,151     | 70,725     | 72,798    | 320,797    | 11,031,255  | 987,213   | 738,955   | 8,836,897   |
| 1971             | 15,595                                 | 45,006     | 43,988     | 42,624    | 339,078    | 2,925,191   | 193,255   | 36,514    | 3,275,227   |
| 1972             | 19,736                                 | 32,657     | 43,939     | 24,748    | 81,937     | 1,388,348   | 101,784   | 20,165    | 1,003,380   |
| 1973             | 14,283                                 | 16,448     | 9,980      | 16,320    | 25,090     | 680,834     | 19,584    | 13,469    | 798,805     |
| 1974             | 22,111                                 | 14,951     | 19,555     | 32,240    | 29,582     | 524,504     | 30,735    | 16,333    | 778,696     |
| 1975             | 15,865                                 | 13,479     | 10,793     | 13,678    | 25,827     | 269,197     | 25,164    | 21,048    | 370,265     |
| 1976             | 76,202                                 | 54,217     | 37,464     | 59,842    | 105,332    | 507,519     | 59,753    | 42,776    | 434,574     |
| 1977             | 75,628                                 | 52,919     | 22,826     | 54,444    | 81,293     | 301,515     | 49,977    | 30,152    | 235,514     |
| 1978             | 48,754                                 | 16,469     | (2,816)    | 27,331    | 43,126     | 348,674     | (653)     | 1,500     | 297,817     |
| 1979             | 241                                    | 6,906      | 13,401     | 14,229    | 25,411     | 293,786     | 9,846     | 7,856     | 245,590     |
| 1980             | 18,165                                 | 18,813     | 15,608     | 27,498    | 34,190     | 1,676,267   | 29,169    | 23,023    | 1,719,775   |
| 1981             | 10,309                                 | 14,885     | 26,473     | 20,972    | 25,515     | (1,076,221) | 27,551    | 33,674    | (1,142,721) |
| 1982             | 8,237                                  | 6,608      | 7,680      | 8,346     | 16,339     | (745,914)   | 9,886     | 29,393    | (804,147)   |
| 1983             | 14,488                                 | 9,792      | 14,174     | 13,050    | 35,872     | 419,650     | 17,389    | 24,933    | 115,983     |
| 1984             | 7,533                                  | 27,613     | 87,907     | 49,271    | 22,732     | 54,590      | 75,453    | 63,060    | 63,537      |
| 1985             | 9,215                                  | 6,949      | 5,263      | 8,013     | 8,875      | (49,408)    | 9,523     | 5,867     | 54,782      |
| 1986             | 22,335                                 | 16,664     | 16,014     | 25,031    | 20,483     | 140,642     | 25,960    | 13,913    | 154,089     |
| 1987             | 16,704                                 | 13,512     | 12,369     | 20,023    | 15,435     | 101,453     | 20,411    | 8,581     | 227,047     |
| 1988             | (159,357)                              | (73,648)   | (151,040)  | (51,401)  | (120,104)  | 161,077     | (75,276)  | (75,307)  | 144,369     |
| 1989             | 70,153                                 | 65,216     | 63,382     | 120,925   | 73,037     | 2,778,880   | 119,559   | 36,660    | 2,952,046   |
| 1990             | 34,841                                 | 29,230     | 27,269     | 49,082    | 34,048     | 715,031     | 44,187    | 14,537    | 440,017     |
| 1991             | 36,888                                 | 32,195     | 30,146     | 55,119    | 34,144     | 423,235     | 50,345    | 12,116    | 353,596     |
| 1992             | 103,321                                | 99,765     | 98,178     | 192,455   | 97,638     | 991,603     | 185,311   | 9,210     | 387,615     |
| 1993             | 90,291                                 | 70,131     | 63,247     | 118,440   | 80,530     | 687,462     | 109,792   | 38,960    | 942,211     |
| 1994             | 65,737                                 | 29,221     | 26,997     | 50,234    | 35,154     | 400,534     | 44,481    | 17,426    | 324,942     |
| 1995             | 435,909                                | 32,487     | 25,516     | 49,885    | 41,733     | 524,524     | 48,740    | 29,125    | 450,952     |
| 1996             | 253,433                                | 19,489     | 15,020     | 30,202    | 29,333     | 403,125     | 26,945    | 16,405    | 253,622     |
| 1997             | 73,458                                 | 30,890     | 25,368     | 48,767    | 40,900     | 451,910     | 47,815    | 29,878    | 809,848     |
| 1998             | 14,618                                 | 7,107      | 5,773      | 10,697    | 9,676      | 288,667     | 10,799    | 6,819     | 119,562     |
| 1999             | 47,323                                 | 16,974     | 13,322     | 34,382    | 31,525     | 260,362     | 24,603    | 14,842    | 264,415     |
| 2000             | 43,393                                 | 21,100     | 32,408     | 40,128    | 25,095     | 168,350     | 15,186    | 11,034    | 151,288     |
| 2001             | 42,281                                 | 13,886     | 21,836     | 34,646    | 7,862      | 68,435      | 4,153     | 4,177     | 65,401      |
| 2002             | 87,355                                 | 19,039     | 6,666      | 78,249    | 47,340     | 272,942     | 22,247    | 35,169    | 163,075     |
| 2003             | 21,957                                 | 7,992      | 7,857      | 17,345    | 14,945     | 129,370     | 5,827     | 10,101    | 107,153     |
| 2004             | 3,575                                  | 1,471      | 1,013      | 5,388     | 4,371      | 45,849      | 2,510     | 1,698     | 47,933      |
| 2005             | 0                                      | 0          | 0          | 0         | 0          | 0           | 0         | 0         | 0           |
| 2006             | 36,461                                 | 12,947     | 7,140      | 21,229    | 23,190     | 196,493     | 11,021    | 11,615    | 160,943     |
| 2007             | 47,943                                 | 17,228     | 9,007      | 29,956    | 30,297     | 266,442     | 13,657    | 16,470    | 217,043     |
| 2008             | 51,096                                 | 18,401     | 9,461      | 32,484    | 32,213     | 285,919     | 14,246    | 17,841    | 232,275     |
| 2009             | 23,708                                 | 8,333      | 5,159      | 12,059    | 15,375     | 122,272     | 8,329     | 6,756     | 102,938     |
| 2010             | 23,708                                 | 8,333      | 5,159      | 12,059    | 15,375     | 122,272     | 8,329     | 6,756     | 102,938     |
| 2011             | 23,708                                 | 8,333      | 5,159      | 12,059    | 15,375     | 122,272     | 8,329     | 6,756     | 102,938     |
| 2012             | 0                                      | 0          | 0          | 0         | 0          | 0           | 0         | 0         | 0           |
| 2013             | 0                                      | 0          | 0          | 0         | 0          | 0           | 0         | 0         | 0           |
| 2014             | 0                                      | 0          | 0          | 0         | 0          | 0           | 0         | 0         | 0           |
| 2015             | 0                                      | 0          | 0          | 0         | 0          | 0           | 0         | 0         | 0           |
| TOTAL            | 10,613,355                             | 12,647,975 | 11,265,828 | 8,484,113 | 16,268,409 | 67,274,438  | 9,158,951 | 7,250,230 | 47,841,051  |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed  
Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 5 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |             |                    |            |             |                 |            |           |            |
|------------------|---------------------------------|-------------|--------------------|------------|-------------|-----------------|------------|-----------|------------|
|                  | SOUTH SAN JOAQUIN (contd.)      |             | TEHACHAPI DIVISION |            |             | MOJAVE DIVISION |            |           |            |
|                  | Reach 16A                       | Subtotal    | Reach 17E          | Reach 17F  | Subtotal    | Reach 18A       | Reach 19   | Reach 19C | Reach 20A  |
|                  | [38]                            | [39]        | [40]               | [41]       | [42]        | [43]            | [44]       | [45]      | [46]       |
| 1952             | 4,440                           | 16,030      | 9,703              | 4,072      | 13,775      | 4,090           | 1,520      | 0         | 2,561      |
| 1953             | 16,513                          | 59,323      | 31,337             | 13,284     | 44,621      | 12,610          | 4,685      | 0         | 7,246      |
| 1954             | 16,601                          | 60,328      | 46,243             | 20,010     | 66,253      | 16,642          | 6,184      | 0         | 9,506      |
| 1955             | 5,223                           | 19,612      | 25,880             | 11,362     | 37,242      | 5,612           | 2,086      | 0         | 2,529      |
| 1956             | 21,754                          | 82,940      | 47,487             | 17,609     | 65,096      | 6,038           | 2,244      | 0         | 2,440      |
| 1957             | 62,657                          | 237,073     | 119,673            | 49,130     | 168,803     | 22,348          | 8,304      | 0         | 9,035      |
| 1958             | 133,083                         | 537,575     | 164,056            | 72,091     | 236,147     | 37,917          | 14,166     | 123       | 15,391     |
| 1959             | 205,748                         | 773,179     | 151,389            | 57,883     | 209,272     | 38,620          | 23,450     | 1,102     | 23,605     |
| 1960             | 204,788                         | 774,678     | 203,222            | 45,323     | 248,545     | 21,356          | 26,093     | 5,318     | 40,523     |
| 1961             | 206,305                         | 1,148,969   | 387,819            | 85,558     | 473,377     | 35,664          | 32,281     | 2,262     | 34,918     |
| 1962             | 171,396                         | 1,127,293   | 353,119            | 82,610     | 435,729     | 68,508          | 266,284    | 1,841     | 10,323     |
| 1963             | 481,941                         | 1,913,123   | 1,191,633          | 124,757    | 1,316,390   | 37,379          | 435,881    | 4,137     | 39,706     |
| 1964             | 1,778,952                       | 5,834,889   | 1,866,000          | 775,005    | 2,641,005   | 95,693          | 706,369    | 8,564     | 43,342     |
| 1965             | 1,268,176                       | 13,733,092  | 2,574,824          | 2,284,869  | 4,859,693   | 121,060         | 716,092    | 9,156     | 108,519    |
| 1966             | 2,896,274                       | 27,347,168  | 5,537,412          | 9,323,517  | 14,860,929  | 366,116         | 1,644,699  | 13,373    | 159,282    |
| 1967             | 3,442,021                       | 30,089,234  | 26,239,390         | 12,398,708 | 38,638,098  | 1,312,022       | 903,880    | 24,103    | 645,078    |
| 1968             | 7,578,498                       | 48,226,583  | 33,363,479         | 7,416,464  | 40,779,943  | 136,804         | 7,109,653  | 71,388    | 1,889,601  |
| 1969             | 13,136,056                      | 45,702,910  | 40,368,425         | 6,883,206  | 47,251,631  | 213,805         | 2,465,641  | 7,423     | 5,939,151  |
| 1970             | 13,890,751                      | 36,322,845  | 35,446,706         | 6,786,231  | 42,232,937  | 2,211,077       | 1,210,665  | 6,217     | 3,652,478  |
| 1971             | 7,903,937                       | 14,885,415  | 20,141,395         | 6,835,303  | 26,976,698  | 1,496,843       | 284,738    | 6,994     | 1,074,759  |
| 1972             | 3,025,555                       | 5,783,019   | 10,002,935         | 34,791     | 10,037,726  | 129,417         | 409,903    | 3,620     | 471,963    |
| 1973             | 1,472,313                       | 3,096,609   | 3,090,140          | 36,207     | 3,126,347   | 23,931          | 75,638     | 2,539     | 88,416     |
| 1974             | 1,031,843                       | 2,546,984   | 4,798,348          | 152,494    | 4,950,842   | 28,399          | 205,581    | 2,703     | 138,673    |
| 1975             | 489,545                         | 1,289,211   | 2,144,178          | 411,404    | 2,555,582   | 44,774          | 70,652     | 5,066     | 68,157     |
| 1976             | 618,049                         | 2,154,103   | 1,124,357          | 174,629    | 1,298,986   | 121,043         | 84,593     | 6,786     | 59,967     |
| 1977             | 580,209                         | 1,673,525   | 655,047            | 31,512     | 686,559     | 261,400         | 133,767    | 7,521     | 117,878    |
| 1978             | 582,775                         | 1,428,409   | 1,900,843          | 27,956     | 1,928,799   | 553,014         | 57,150     | 5,872     | 51,615     |
| 1979             | 542,554                         | 1,182,702   | 2,099,385          | 61,381     | 2,160,766   | 626,615         | 339,536    | 10,831    | 37,085     |
| 1980             | 3,772,498                       | 7,372,362   | 17,433,610         | 6,046      | 17,439,656  | 1,130,429       | 1,073,430  | 3,604     | 308,188    |
| 1981             | (2,527,211)                     | (4,566,440) | (3,848,206)        | 6,908      | (3,841,298) | 1,218,824       | 845,702    | 4,498     | 48,625     |
| 1982             | (1,850,736)                     | (3,296,600) | 11,370,112         | 6,054      | 11,376,166  | 6,968,683       | 746,900    | 3,920     | 33,869     |
| 1983             | 166,232                         | 864,390     | 8,862,914          | 8,269      | 8,871,183   | 10,909,386      | 64,660     | 2,596     | 40,793     |
| 1984             | 119,387                         | 613,799     | 3,227,937          | 31,701     | 3,259,638   | 8,340,371       | 309,491    | 3,124     | 17,505     |
| 1985             | 82,117                          | 165,866     | 1,926,289          | 10,460     | 1,936,749   | 5,264,156       | 227,986    | 3,885     | 68,422     |
| 1986             | 186,348                         | 675,895     | 1,381,955          | 33,788     | 1,415,743   | 2,049,111       | 2,069,663  | 4,261     | 2,331,707  |
| 1987             | 194,936                         | 718,184     | 671,183            | 13,807     | 684,990     | 1,347,722       | (6,453)    | 4,684     | 562,540    |
| 1988             | 262,334                         | (308,900)   | 1,408,760          | (49,734)   | 1,359,026   | 847,954         | (104,961)  | 13,409    | (159,892)  |
| 1989             | 5,955,356                       | 12,610,055  | 504,715            | 64,660     | 569,375     | 376,980         | 207,150    | 50,953    | 31,173     |
| 1990             | 640,283                         | 4,092,118   | 783,219            | 25,218     | 808,437     | 202,065         | (402,573)  | 61,192    | (637,062)  |
| 1991             | 774,129                         | 1,890,989   | 691,578            | 33,405     | 724,983     | 273,021         | 22,218     | 81,545    | (188,732)  |
| 1992             | 731,512                         | 3,113,074   | 741,986            | 24,369     | 766,355     | 620,962         | 384,568    | 86,644    | 225,398    |
| 1993             | 857,038                         | 3,265,681   | 1,223,402          | 35,370     | 1,258,772   | 1,131,166       | 248,287    | 72,746    | 110,869    |
| 1994             | 853,328                         | 1,937,975   | 806,213            | 16,681     | 822,894     | 998,126         | 164,096    | 60,147    | 51,340     |
| 1995             | 628,941                         | 2,373,574   | 1,538,497          | 19,443     | 1,557,940   | 390,433         | 157,481    | 45,990    | 92,925     |
| 1996             | 388,064                         | 1,498,995   | 2,571,039          | 10,797     | 2,581,836   | 91,593          | 69,281     | 22,188    | 35,656     |
| 1997             | 481,458                         | 2,144,699   | 1,009,249          | 18,265     | 1,027,514   | 135,402         | 92,607     | 13,590    | 65,433     |
| 1998             | 440,746                         | 937,096     | 925,574            | 6,843      | 932,417     | 47,486          | 36,170     | 4,164     | 29,900     |
| 1999             | 361,308                         | 1,123,375   | 661,104            | 12,023     | 673,127     | 113,032         | 49,062     | 5,329     | 171,867    |
| 2000             | 372,619                         | 937,255     | 406,462            | 14,073     | 420,535     | 119,903         | 89,985     | 936       | 83,355     |
| 2001             | 165,140                         | 467,378     | 254,030            | 9,132      | 263,162     | 63,118          | 185,890    | 2,223     | 342,940    |
| 2002             | 284,187                         | 1,083,181   | 235,166            | 7,823      | 242,989     | 33,319          | (140,419)  | 1,374     | (112,511)  |
| 2003             | 154,356                         | 512,464     | 160,899            | 8,472      | 169,371     | 79,020          | (21,430)   | 0         | (13,203)   |
| 2004             | 311,101                         | 452,677     | 362,265            | 2,069      | 364,334     | 14,426          | 12,464     | 0         | 12,567     |
| 2005             | 0                               | 26,296      | 2,264,058          | 0          | 2,264,058   | 10,573          | 0          | 0         | 0          |
| 2006             | 249,519                         | 777,680     | 3,582,288          | 10,828     | 3,593,116   | 95,272          | 23,633     | 0         | 35,480     |
| 2007             | 331,047                         | 1,045,750   | 4,200,581          | 15,205     | 4,215,786   | 161,318         | 29,968     | 0         | 43,217     |
| 2008             | 353,513                         | 1,119,722   | 4,224,879          | 16,470     | 4,241,349   | 181,619         | 31,545     | 0         | 44,996     |
| 2009             | 160,332                         | 492,193     | 308,861            | 6,214      | 315,075     | 32,088          | 16,820     | 0         | 26,694     |
| 2010             | 160,332                         | 492,193     | 308,861            | 6,214      | 315,075     | 32,088          | 16,820     | 0         | 26,694     |
| 2011             | 160,332                         | 492,193     | 308,861            | 6,214      | 315,075     | 32,088          | 16,820     | 0         | 26,694     |
| 2012             | 0                               | 0           | 0                  | 0          | 0           | 0               | 0          | 0         | 0          |
| 2013             | 0                               | 0           | 0                  | 0          | 0           | 0               | 0          | 0         | 0          |
| 2014             | 0                               | 0           | 0                  | 0          | 0           | 0               | 0          | 0         | 0          |
| 2015             | 0                               | 0           | 0                  | 0          | 0           | 0               | 0          | 0         | 0          |
| TOTAL            | 76,988,503                      | 293,171,990 | 264,592,766        | 54,654,453 | 319,247,219 | 51,360,531      | 23,758,596 | 759,941   | 18,501,194 |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 6 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |             |            |             |            |            |             |                    |             |
|------------------|---------------------------------|-------------|------------|-------------|------------|------------|-------------|--------------------|-------------|
|                  | MOJAVE DIVISION (continued)     |             |            |             |            |            |             | SANTA ANA DIVISION |             |
|                  | Reach 20B                       | Reach 21    | Reach 22A  | Reach 22B   | Reach 23   | Reach 24   | Subtotal    | Reach 25           | Reach 26A   |
|                  | [47]                            | [48]        | [49]       | [50]        | [51]       | [52]       | [53]        | [54]               | [55]        |
| 1952             | 892                             | 5,788       | 35         | 2,013       | 2,074      | 2,413      | 21,386      | 3,334              | 5,599       |
| 1953             | 3,402                           | 17,846      | 71         | 5,752       | 6,886      | 7,438      | 65,936      | 10,275             | 17,264      |
| 1954             | 4,548                           | 23,558      | 369        | 8,560       | 7,849      | 9,820      | 87,036      | 13,566             | 22,790      |
| 1955             | 2,213                           | 7,947       | 178        | 2,754       | 2,725      | 3,313      | 29,357      | 4,575              | 7,687       |
| 1956             | 2,655                           | 8,542       | 216        | 2,905       | 2,961      | 3,561      | 31,562      | 4,917              | 8,264       |
| 1957             | 9,826                           | 31,616      | 800        | 10,757      | 10,962     | 13,177     | 116,825     | 18,205             | 30,586      |
| 1958             | 16,752                          | 53,569      | 1,397      | 18,717      | 18,578     | 22,627     | 199,237     | 31,001             | 52,019      |
| 1959             | 18,604                          | 56,724      | 1,844      | 25,421      | 20,372     | 45,646     | 255,388     | 39,325             | 58,137      |
| 1960             | 37,179                          | 43,893      | 11,029     | 136,751     | 17,152     | 109,816    | 449,110     | 65,655             | 93,700      |
| 1961             | 37,102                          | 21,532      | 14,517     | 215,859     | 9,546      | 373,473    | 777,154     | 26,979             | 56,734      |
| 1962             | 10,730                          | 8,197       | 4,186      | 164,168     | 4,336      | 279,421    | 817,994     | 9,964              | 36,235      |
| 1963             | 40,865                          | 26,670      | 17,081     | 237,695     | 7,228      | 358,503    | 1,205,145   | 31,013             | 112,271     |
| 1964             | 71,116                          | 33,912      | 22,793     | 262,996     | 6,863      | 244,003    | 1,495,651   | 69,669             | 202,642     |
| 1965             | 343,506                         | 91,095      | 65,689     | 827,655     | 11,836     | 621,566    | 2,916,174   | 279,237            | 206,356     |
| 1966             | 1,311,628                       | 160,388     | 178,538    | 1,746,245   | 31,078     | 1,018,628  | 6,629,975   | 415,066            | 364,004     |
| 1967             | 1,718,942                       | 498,257     | 367,961    | 3,146,128   | 62,135     | 2,331,106  | 11,009,612  | 3,184,296          | 638,539     |
| 1968             | 2,291,691                       | 1,141,929   | 1,145,768  | 4,588,850   | 102,207    | 2,600,293  | 21,078,184  | 8,264,126          | 1,268,194   |
| 1969             | 5,626,284                       | 2,358,737   | 1,515,147  | 7,750,478   | 260,659    | 11,131,406 | 37,268,731  | 6,807,783          | 1,768,456   |
| 1970             | 5,304,372                       | 3,232,911   | 2,081,810  | 23,451,612  | 1,240,798  | 16,885,193 | 59,277,133  | 2,169,051          | 7,229,429   |
| 1971             | 1,091,123                       | 825,070     | 432,464    | 16,772,680  | 1,922,115  | 5,385,721  | 29,292,507  | 1,135,248          | 9,811,736   |
| 1972             | 635,507                         | 484,772     | 324,865    | 3,788,894   | 48,049     | 788,479    | 7,085,469   | 1,095,740          | 5,528,987   |
| 1973             | 83,840                          | 63,774      | 36,179     | 1,623,274   | 24,333     | 4,225,877  | 6,247,801   | 136,994            | 1,810,729   |
| 1974             | 118,639                         | 103,545     | 54,198     | 5,699,605   | 130,567    | 766,562    | 7,248,472   | 68,180             | 1,922,999   |
| 1975             | 169,294                         | 167,240     | 19,453     | 4,793,580   | 19,467     | 373,783    | 5,731,466   | 166,653            | 3,787,797   |
| 1976             | 102,909                         | 44,896      | 24,732     | 3,103,916   | 84,188     | 204,705    | 3,837,735   | 475,176            | 1,494,750   |
| 1977             | 120,160                         | 71,389      | 49,445     | 1,654,122   | 60,112     | 232,230    | 2,708,024   | 76,255             | 776,085     |
| 1978             | 68,838                          | 32,855      | 18,183     | 677,448     | 36,484     | 210,198    | 1,711,657   | 57,463             | 131,076     |
| 1979             | 36,225                          | 18,948      | 10,675     | 560,506     | 10,634     | 103,615    | 1,754,670   | 29,960             | 80,482      |
| 1980             | 284,545                         | 133,526     | 121,171    | 2,239,224   | 60,229     | 559,963    | 5,914,309   | 31,462             | 181,638     |
| 1981             | 32,214                          | 13,223      | 6,466      | (774,614)   | 138,917    | 203,941    | 1,737,796   | 5,864              | 69,031      |
| 1982             | 77,988                          | 13,158      | 14,459     | 432,274     | 346,905    | 79,819     | 8,717,975   | 9,224              | 159,280     |
| 1983             | 58,714                          | 25,900      | 10,363     | 451,428     | 2,029,405  | 58,989     | 13,652,234  | 4,304              | 528,764     |
| 1984             | 35,378                          | 845,423     | 6,052      | (83,811)    | 1,290,740  | 34,764     | 10,799,037  | 3,850              | 270,455     |
| 1985             | (232,549)                       | (481,017)   | 1,945,477  | 608,583     | 966,160    | 51,634     | 8,422,737   | 5,555              | 62,571      |
| 1986             | (2,046,222)                     | (1,334,975) | 3,260,280  | 1,097,122   | 230,510    | 51,994     | 7,713,451   | 9,927              | 114,561     |
| 1987             | (344,829)                       | 55,519      | 64,264     | 3,631,282   | 146,850    | 91,223     | 5,552,802   | 4,908              | 27,208      |
| 1988             | (147,290)                       | (70,564)    | 351,489    | 552,546     | 558,557    | 197,761    | 2,039,009   | 7,358              | 161,957     |
| 1989             | 60,657                          | 30,217      | 534,658    | 4,161,037   | 1,496,776  | 433,072    | 7,382,673   | 8,092              | (2,297,399) |
| 1990             | (403,413)                       | (635,623)   | (97,841)   | 8,794,258   | 1,394,698  | 344,367    | 8,620,068   | 176,854            | (1,657,576) |
| 1991             | (18,809)                        | (147,369)   | (17,234)   | 7,985,326   | 3,624,824  | 139,105    | 11,753,895  | 202,286            | (1,316,160) |
| 1992             | 338,098                         | (263,897)   | 75,210     | 4,849,560   | 8,364,426  | 127,829    | 14,808,798  | 333,934            | (1,878,502) |
| 1993             | 180,598                         | 133,941     | 49,144     | 2,094,764   | 15,390,366 | 159,211    | 19,571,092  | 1,506,787          | 3,979,221   |
| 1994             | 114,273                         | 65,260      | 26,546     | 933,021     | 8,082,401  | 81,869     | 10,577,079  | 2,104,588          | 2,493,097   |
| 1995             | 121,499                         | 66,503      | 30,918     | 1,096,953   | 5,924,175  | 123,653    | 8,050,530   | 3,310,564          | 500,791     |
| 1996             | 48,699                          | 44,953      | 17,787     | 1,736,686   | 2,181,669  | 96,339     | 4,344,851   | 19,019,751         | (100,474)   |
| 1997             | 39,973                          | 55,881      | 27,865     | 809,666     | (342,563)  | 102,390    | 1,000,244   | 7,645,602          | (662,524)   |
| 1998             | 27,626                          | 20,285      | 12,816     | 273,139     | 3,392,776  | 36,135     | 3,880,497   | 993,619            | 1,613,505   |
| 1999             | 58,327                          | 37,630      | 18,087     | 1,007,117   | 2,208,411  | 123,902    | 3,792,764   | 223,882            | 843,461     |
| 2000             | 75,113                          | 44,803      | 20,567     | 725,557     | 1,251,238  | 84,653     | 2,496,110   | 128,725            | 1,285,316   |
| 2001             | 121,114                         | 77,432      | 57,140     | 555,712     | 339,949    | 32,066     | 1,777,584   | 70,116             | 445,110     |
| 2002             | (83,458)                        | (7,737)     | (40,809)   | 275,268     | 266,115    | 77,094     | 268,236     | 51,893             | 1,751,376   |
| 2003             | (9,309)                         | (4,047)     | 2,740      | 392,726     | 140,027    | 41,878     | 608,402     | 80,322             | 346,217     |
| 2004             | 7,838                           | 7,871       | 6,249      | 254,106     | 43,526     | 17,075     | 376,122     | 11,503             | 268,226     |
| 2005             | 0                               | 0           | 0          | 0           | 90,480     | 143,825    | 244,878     | 16,594             | 90,632      |
| 2006             | 35,613                          | 25,438      | 7,538      | 1,312,062   | 1,107,218  | 886,767    | 3,529,021   | 87,637             | 230,110     |
| 2007             | 42,004                          | 30,933      | 11,099     | 4,259,811   | 1,135,686  | 855,785    | 6,569,821   | 87,528             | 314,044     |
| 2008             | 43,514                          | 32,285      | 12,119     | 3,422,639   | 231,707    | 72,627     | 4,073,051   | 86,351             | 337,965     |
| 2009             | 26,897                          | 18,651      | 4,078      | 260,725     | 81,164     | 35,159     | 502,276     | 77,036             | 139,078     |
| 2010             | 26,897                          | 18,651      | 4,078      | 260,725     | 81,164     | 35,159     | 502,276     | 77,036             | 139,078     |
| 2011             | 26,897                          | 18,651      | 4,078      | 260,725     | 81,164     | 35,159     | 502,276     | 77,036             | 139,078     |
| 2012             | 0                               | 0           | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 2013             | 0                               | 0           | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 2014             | 0                               | 0           | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 2015             | 0                               | 0           | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| TOTAL            | 17,877,439                      | 8,506,505   | 12,946,477 | 135,154,958 | 66,497,864 | 53,767,780 | 389,131,285 | 61,149,894         | 46,102,682  |

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 7 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |            |            |             |             |            |             |            |              |
|------------------|---------------------------------|------------|------------|-------------|-------------|------------|-------------|------------|--------------|
|                  | SANTA ANA DIVISION (continued)  |            |            |             | WEST BRANCH |            |             |            |              |
|                  | Reach 28G (a)                   | Reach 28H  | Reach 28J  | Subtotal    | Reach 29A   | Reach 29F  | Reach 29G   | Reach 29H  | Reach 29J    |
|                  | [56]                            | [57]       | [58]       | [59]        | [60]        | [61]       | [62]        | [63]       | [64]         |
| 1952             | 4,785                           | 4,055      | 3,020      | 20,793      | 2,924       | 136        | 175         | 459        | 553          |
| 1953             | 15,580                          | 11,511     | 9,476      | 64,106      | 9,093       | 344        | 237         | 1,754      | 1,683        |
| 1954             | 18,015                          | 18,100     | 12,160     | 84,631      | 7,389       | 1,201      | 2,229       | 2,350      | 4,162        |
| 1955             | 6,052                           | 6,081      | 4,151      | 28,546      | 1,019       | 585        | 1,086       | 1,147      | 2,029        |
| 1956             | 6,496                           | 6,525      | 4,480      | 30,682      | 490         | 698        | 1,297       | 1,366      | 2,420        |
| 1957             | 24,044                          | 24,156     | 16,585     | 113,576     | 1,809       | 2,583      | 4,792       | 5,057      | 8,952        |
| 1958             | 40,844                          | 41,033     | 28,470     | 193,367     | 3,256       | 4,516      | 8,714       | 8,878      | 15,847       |
| 1959             | 45,746                          | 45,946     | 44,331     | 233,485     | 7,953       | 9,150      | 19,414      | 18,243     | 35,583       |
| 1960             | 59,102                          | 58,548     | 118,969    | 395,974     | 21,753      | 14,990     | 34,447      | 29,764     | 69,752       |
| 1961             | 32,226                          | 34,382     | 674,787    | 825,108     | 22,442      | 12,775     | 21,559      | 20,086     | 39,761       |
| 1962             | 21,383                          | 20,530     | 47,484     | 135,596     | 40,237      | 28,729     | 86,938      | 58,215     | 108,962      |
| 1963             | 43,884                          | 41,698     | 1,506,440  | 1,735,306   | 91,959      | 69,162     | 163,347     | 110,015    | 211,592      |
| 1964             | 89,710                          | 45,762     | 98,569     | 506,352     | 150,670     | 66,420     | 207,977     | 143,340    | 291,404      |
| 1965             | 96,956                          | 76,899     | 146,095    | 805,543     | 361,811     | 77,914     | 403,115     | 127,430    | 589,638      |
| 1966             | 170,878                         | 308,756    | 589,107    | 1,847,811   | 489,512     | 203,497    | 1,233,640   | 348,918    | 3,231,797    |
| 1967             | 233,968                         | 283,126    | 987,832    | 5,327,761   | 1,589,715   | 882,096    | 1,117,243   | 891,607    | 31,088,491   |
| 1968             | 871,337                         | 266,295    | 780,587    | 11,450,539  | 3,899,363   | 300,921    | 396,190     | 1,104,832  | 36,157,768   |
| 1969             | 1,117,873                       | 1,444,654  | 756,442    | 11,895,208  | 6,592,580   | 336,480    | 693,348     | 1,184,454  | 9,655,871    |
| 1970             | 1,843,621                       | 1,013,468  | 2,829,523  | 15,085,092  | 7,986,733   | 6,089,401  | 2,624,747   | 3,002,968  | 8,463,475    |
| 1971             | 16,095,702                      | 6,401,303  | 12,111,623 | 45,555,612  | 4,247,037   | 3,768,699  | 1,120,231   | 8,244,651  | 5,844,024    |
| 1972             | 1,537,880                       | 11,960,791 | 21,542,747 | 41,666,145  | 1,871,831   | 426,932    | 985,512     | 18,787,722 | (23,015,734) |
| 1973             | 209,664                         | 247,769    | 3,673,344  | 6,078,500   | 775,824     | 168,064    | 399,856     | 9,408,706  | 1,821,206    |
| 1974             | 162,178                         | 101,638    | 1,980,991  | 4,235,986   | 560,657     | 168,878    | 169,717     | 3,901,261  | (3,454,239)  |
| 1975             | 157,365                         | 124,399    | 1,626,274  | 5,862,488   | 353,670     | 421,176    | 925,693     | 664,113    | 609,891      |
| 1976             | 178,287                         | 118,748    | 1,497,465  | 3,764,426   | 396,809     | 650,417    | 1,274,484   | 706,244    | 650,209      |
| 1977             | 127,106                         | 89,036     | 323,091    | 1,391,573   | 390,637     | 3,018,637  | 2,152,961   | 196,012    | 1,135,148    |
| 1978             | 147,112                         | 153,867    | 347,482    | 837,000     | 1,427,190   | 2,219,135  | 6,694,615   | 57,817     | 149,932      |
| 1979             | 29,723                          | 19,225     | 225,947    | 385,337     | 940,013     | 2,168,382  | 19,813,742  | 597,858    | 331,313      |
| 1980             | 137,833                         | 154,821    | 1,077,900  | 1,583,654   | 1,276,793   | 4,108,143  | 24,537,814  | 550,337    | 204,751      |
| 1981             | 28,815                          | 22,654     | 61,349     | 187,713     | (711,751)   | 2,699,873  | 19,806,531  | 94,944     | 28,852       |
| 1982             | 16,069                          | 58,900     | 55,841     | 299,314     | (465,217)   | 351,251    | 17,964,617  | 215,678    | 42,587       |
| 1983             | 18,213                          | 89,581     | (264,804)  | 376,058     | 100,394     | 180,971    | 6,751,649   | 220,029    | 24,295       |
| 1984             | 14,462                          | 12,259     | 49,547     | 350,573     | 71,759      | 68,930     | 2,870,259   | 335,942    | 17,285       |
| 1985             | 17,816                          | 11,481     | 54,070     | 151,493     | 142,244     | 25,386     | 2,126,670   | 102,366    | 21,971       |
| 1986             | 31,564                          | 25,037     | 86,794     | 267,883     | 133,914     | 62,294     | 274,660     | 141,894    | 36,149       |
| 1987             | 17,141                          | 8,005      | 45,528     | 102,790     | 13,936      | 453,949    | 711,773     | 192,511    | 27,931       |
| 1988             | 41,892                          | 21,113     | 90,784     | 323,104     | 427,544     | 118,010    | 1,660,959   | 203,130    | 95,930       |
| 1989             | 28,708                          | 12,619     | 51,556     | (2,196,424) | 207,067     | 430,662    | 584,186     | 241,811    | 97,472       |
| 1990             | 27,478                          | 12,817     | 55,408     | (1,385,019) | 197,428     | 355,480    | 386,882     | 813,211    | 54,269       |
| 1991             | 142,139                         | 15,524     | 62,794     | (893,417)   | 219,321     | 344,386    | 453,336     | 1,132,520  | 55,176       |
| 1992             | 34,185                          | 13,422     | 69,479     | (1,427,482) | 541,026     | 295,312    | 464,421     | 4,402,524  | 47,182       |
| 1993             | 44,300                          | 27,047     | 162,854    | 5,720,209   | 464,987     | 320,182    | 643,189     | 3,361,457  | 74,198       |
| 1994             | 16,351                          | 11,673     | 54,581     | 4,680,290   | 203,666     | 231,527    | 362,717     | 306,148    | 33,758       |
| 1995             | 35,402                          | 28,202     | 164,254    | 4,039,213   | 344,358     | 392,647    | 536,253     | 468,656    | 34,007       |
| 1996             | 76,723                          | 73,629     | 344,747    | 19,414,376  | 150,901     | 161,394    | 427,223     | 203,201    | 15,357       |
| 1997             | 50,662                          | 20,720     | 268,293    | 7,322,753   | 298,002     | 71,310     | 432,940     | 276,180    | 50,095       |
| 1998             | 10,268                          | 8,970      | 479,138    | 3,105,500   | 346,973     | 21,003     | 2,028,979   | 181,951    | 49,377       |
| 1999             | 84,563                          | 45,203     | 324,045    | 1,521,154   | 296,367     | 37,791     | 1,080,369   | 125,121    | 50,944       |
| 2000             | 63,878                          | 41,167     | 113,901    | 1,632,987   | 211,896     | 34,019     | 238,107     | 116,129    | 12,752       |
| 2001             | 18,724                          | 12,527     | 86,471     | 632,948     | 41,401      | 8,288      | 100,282     | 107,743    | 7,430        |
| 2002             | 52,314                          | 11,508     | 194,758    | 2,061,849   | 169,305     | 32,612     | 249,057     | 57,031     | 4,565        |
| 2003             | 1,093,434                       | 2,479,743  | 174,660    | 4,174,376   | 46,382      | 13,185     | 94,703      | 50,878     | 43,728       |
| 2004             | 1,735,372                       | 855,876    | 23,119     | 2,894,096   | 47,098      | 5,681      | 22,334      | 104,380    | 213,639      |
| 2005             | 2,049,472                       | 409,829    | 270,555    | 2,837,082   | 273,707     | 0          | 39,668      | 0          | 51,947       |
| 2006             | 1,087,474                       | 2,031,708  | 380,558    | 3,817,487   | 1,419,133   | 729,392    | 194,358     | 162,832    | 437,982      |
| 2007             | 32,550                          | 1,681,603  | 11,474,286 | 13,590,011  | 1,411,290   | 733,691    | 750,501     | 1,107,857  | 17,711       |
| 2008             | 33,901                          | 32,041     | 30,809,223 | 31,299,481  | 195,625     | 27,426     | 508,894     | 1,119,740  | 18,805       |
| 2009             | 20,076                          | 22,233     | 35,511     | 293,934     | 101,394     | 16,805     | 4,052,486   | 76,090     | 9,112        |
| 2010             | 20,076                          | 22,233     | 35,511     | 293,934     | 101,394     | 16,805     | 549,241     | 76,090     | 9,112        |
| 2011             | 20,076                          | 22,233     | 35,511     | 293,934     | 101,394     | 16,805     | 304,061     | 76,090     | 9,112        |
| 2012             | 0                               | 0          | 0          | 0           | 0           | 0          | 0           | 0          | 0            |
| 2013             | 0                               | 0          | 0          | 0           | 0           | 0          | 0           | 0          | 0            |
| 2014             | 0                               | 0          | 0          | 0           | 0           | 0          | 0           | 0          | 0            |
| 2015             | 0                               | 0          | 0          | 0           | 0           | 0          | 0           | 0          | 0            |
| TOTAL            | 30,489,448                      | 31,264,679 | 98,915,694 | 267,922,397 | 40,624,107  | 33,477,128 | 131,766,425 | 66,249,738 | 75,948,971   |

a) Includes excess capacity costs (not shown in Table B-9) allocated to MWDSC in the following years and repaid under Article 24(c) of its contract: 1970 - \$362,000; 1971 - \$6,198,000; 1972 - \$139,000.

**TABLE B-10. Capital Costs of Each Aqueduct Reach to be Reimbursed Through Capital Cost Component of Transportation Charge**

(in dollars)

Sheet 8 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |             |                |             |             |            |            |            |            |             |               | GRAND<br>TOTAL |
|------------------|---------------------------------|-------------|----------------|-------------|-------------|------------|------------|------------|------------|-------------|---------------|----------------|
|                  | WEST BRANCH (cont.)             |             | COASTAL BRANCH |             |             |            |            |            |            |             | Total         |                |
|                  | Reach 30                        | Subtotal    | Reach 31A      | Reach 33A   | Reach 33B   | Reach 34   | Reach 35   | Reach 37   | Reach 38   | Subtotal    |               |                |
|                  | [65]                            | [66]        | [67]           | [68]        |             | [69]       | [70]       | [71]       | [72]       | [73]        | [74]          | [75]           |
| 1952             | 1,408                           | 5,655       | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 98,857        | 99,353         |
| 1953             | 4,346                           | 17,457      | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 309,387       | 311,812        |
| 1954             | 5,743                           | 23,074      | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 394,688       | 402,143        |
| 1955             | 1,943                           | 7,809       | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 159,842       | 169,342        |
| 1956             | 2,077                           | 8,348       | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 255,679       | 351,551        |
| 1957             | 7,684                           | 30,877      | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 708,753       | 1,464,452      |
| 1958             | 13,931                          | 55,142      | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 1,331,616     | 2,286,623      |
| 1959             | 44,384                          | 134,727     | 28,046         | 49,114      | 0           | 7,441      | 8,236      | 0          | 0          | 92,837      | 2,096,392     | 2,967,412      |
| 1960             | 84,703                          | 255,409     | 34,404         | 70,450      | 0           | 8,507      | 14,265     | 0          | 0          | 127,626     | 2,937,049     | 4,660,833      |
| 1961             | 123,330                         | 239,953     | 13,801         | 17,868      | 0           | 1,501      | 3,931      | 0          | 0          | 37,101      | 4,650,264     | 8,545,244      |
| 1962             | 348,366                         | 671,447     | 10,121         | 7,798       | 0           | 524        | 1,689      | 0          | 0          | 20,132      | 5,827,774     | 8,875,171      |
| 1963             | 521,491                         | 1,167,566   | 20,470         | 14,299      | 0           | 880        | 2,943      | 0          | 0          | 38,592      | 18,981,487    | 24,610,278     |
| 1964             | 1,372,464                       | 2,232,275   | 315,418        | 26,963      | 0           | 1,687      | 5,639      | 0          | 0          | 349,707     | 31,550,813    | 41,736,060     |
| 1965             | 3,383,950                       | 4,943,858   | 747,023        | 36,178      | 0           | 2,118      | 7,060      | 0          | 0          | 792,379     | 57,936,405    | 62,664,743     |
| 1966             | 9,364,753                       | 14,872,117  | 2,258,915      | 35,864      | 0           | 1,736      | 5,764      | 0          | 0          | 2,302,279   | 124,748,128   | 129,110,330    |
| 1967             | 17,618,827                      | 53,187,979  | 6,310,419      | 38,331      | 0           | 1,891      | 6,213      | 0          | 0          | 6,356,854   | 187,465,580   | 194,146,365    |
| 1968             | 15,736,691                      | 57,595,765  | 2,707,580      | 30,784      | 0           | 1,324      | 4,369      | 0          | 0          | 2,744,057   | 192,593,079   | 197,978,911    |
| 1969             | 16,228,175                      | 34,690,908  | 423,797        | 26,549      | 0           | 907        | 2,905      | 0          | 0          | 454,158     | 182,530,023   | 184,473,490    |
| 1970             | 22,330,328                      | 50,497,652  | 269,194        | 24,368      | 0           | 851        | 2,787      | 0          | 0          | 297,200     | 206,720,774   | 207,082,650    |
| 1971             | 16,890,503                      | 40,115,145  | 164,446        | 32,230      | 0           | 1,315      | 3,804      | 0          | 0          | 201,795     | 158,414,033   | 158,624,739    |
| 1972             | 3,818,001                       | 2,874,264   | 131,332        | 17,601      | 0           | 522        | 1,660      | 0          | 0          | 151,115     | 68,228,670    | 68,362,291     |
| 1973             | 13,426,222                      | 25,999,878  | 182,493        | 16,154      | 0           | 542        | 1,758      | 0          | 0          | 200,947     | 45,110,823    | 45,263,853     |
| 1974             | 2,988,318                       | 4,334,592   | 190,866        | 18,799      | 0           | 463        | 1,405      | 0          | 0          | 211,533     | 24,036,199    | 24,402,166     |
| 1975             | 1,808,235                       | 4,782,778   | 64,582         | 36,012      | 0           | 2,255      | 6,656      | 0          | 0          | 109,505     | 21,065,768    | 21,318,838     |
| 1976             | 1,253,067                       | 4,931,230   | 198,266        | 68,898      | 0           | 5,088      | 14,988     | 0          | 0          | 287,240     | 17,183,961    | 17,492,910     |
| 1977             | 345,023                         | 7,238,418   | 918,473        | 81,305      | 0           | 1,834      | 5,387      | 0          | 0          | 1,006,999   | 15,165,801    | 15,544,382     |
| 1978             | 763,445                         | 11,312,134  | 52,994         | 83,300      | 0           | 1,302      | 3,852      | 0          | 0          | 141,448     | 18,661,117    | 19,119,151     |
| 1979             | 282,145                         | 24,133,453  | 38,182         | 108,951     | 0           | 1,505      | 4,433      | 0          | 0          | 153,071     | 31,202,118    | 31,857,362     |
| 1980             | 2,055,206                       | 32,733,044  | 189,070        | 376,036     | 0           | 1,152      | 3,449      | 0          | 0          | 569,707     | 73,891,101    | 74,986,833     |
| 1981             | 275,460                         | 22,193,909  | 19,897         | (157,537)   | 0           | 1,427      | 4,261      | 0          | 0          | (131,952)   | 15,246,649    | 15,742,773     |
| 1982             | 351,376                         | 18,460,292  | (16,381)       | (96,449)    | 0           | 588        | 1,787      | 0          | 0          | (110,455)   | 38,256,580    | 39,705,931     |
| 1983             | 566,545                         | 7,843,883   | 85,496         | 67,106      | 0           | 794        | 2,398      | 0          | 0          | 155,794     | 34,705,281    | 38,044,649     |
| 1984             | 1,118,954                       | 4,483,129   | 28,568         | 54,074      | 0           | 986        | 2,959      | 0          | 0          | 86,587      | 24,454,091    | 30,382,250     |
| 1985             | 284,243                         | 2,702,880   | 36,834         | 54,314      | 0           | 2,111      | 6,263      | 0          | 0          | 99,522      | 14,914,930    | 28,537,556     |
| 1986             | 213,353                         | 862,264     | 82,358         | 223,134     | 0           | 17,458     | 51,279     | 0          | 0          | 374,229     | 13,435,351    | 43,155,828     |
| 1987             | 158,313                         | 1,558,413   | 53,817         | 1,061,939   | 0           | 92,506     | 272,968    | 0          | 0          | 1,481,230   | 11,711,428    | 34,331,982     |
| 1988             | 222,068                         | 2,727,641   | 183,853        | 1,141,272   | 0           | 99,456     | 293,612    | 0          | 0          | 1,718,193   | 11,026,370    | 18,123,243     |
| 1989             | 148,674                         | 1,709,872   | 84,678         | 893,765     | 0           | 77,283     | 228,038    | 0          | 0          | 1,283,764   | 30,302,112    | 33,130,497     |
| 1990             | 119,438                         | 1,926,708   | 133,868        | 1,100,167   | 0           | 103,785    | 277,889    | 0          | 0          | 1,615,709   | 32,589,619    | 34,435,721     |
| 1991             | 229,315                         | 2,434,054   | 164,610        | 1,635,283   | 0           | 123,603    | 363,889    | 0          | 0          | 2,287,385   | 38,320,942    | 39,811,664     |
| 1992             | 206,495                         | 5,956,960   | 183,240        | 1,220,510   | 1,495,646   | 566,230    | 240,553    | 102,051    | 74,162     | 3,882,392   | 34,312,996    | 35,041,233     |
| 1993             | 296,349                         | 5,160,362   | 344,928        | 5,274,657   | 5,052,431   | 1,345,211  | 688,935    | 268,937    | 358,367    | 13,333,467  | 53,122,385    | 53,921,788     |
| 1994             | 168,426                         | 1,306,242   | 282,150        | 15,905,886  | 21,341,196  | 8,915,445  | 2,363,238  | 678,753    | 1,315,559  | 50,802,227  | 73,751,564    | 74,225,377     |
| 1995             | 304,983                         | 2,080,904   | 1,196,326      | 45,172,271  | 62,947,362  | 23,975,738 | 20,849,939 | 7,029,108  | 7,117,197  | 168,287,940 | 191,033,089   | 191,525,570    |
| 1996             | 98,522                          | 1,056,598   | 948,730        | 42,987,442  | 54,300,990  | 26,475,298 | 18,790,572 | 7,213,823  | 6,616,310  | 157,333,164 | 187,776,346   | 188,025,324    |
| 1997             | 233,956                         | 1,362,483   | 562,583        | 11,209,633  | 10,456,863  | 10,456,863 | 4,149,105  | 545,378    | 798,606    | 41,615,744  | 62,137,369    | 62,583,537     |
| 1998             | 67,874                          | 2,696,157   | 248,671        | 2,355,322   | 4,159,441   | 3,368,320  | 952,615    | 192,567    | 280,779    | 11,557,715  | 27,083,446    | 27,217,157     |
| 1999             | 117,470                         | 1,708,062   | 288,155        | 2,913,031   | 4,398,199   | 2,617,504  | 357,331    | 36,680     | 51,648     | 10,662,548  | 24,089,004    | 24,559,088     |
| 2000             | 186,940                         | 799,843     | 132,288        | 241,661     | 2,964,598   | 2,747,810  | 19,670     | 0          | 0          | 6,106,027   | 13,511,424    | 13,748,070     |
| 2001             | 17,175                          | 282,319     | 102,285        | 79,245      | 559,917     | 15,389     | 11,334     | 0          | 0          | 768,170     | 5,175,588     | 7,507,776      |
| 2002             | 55,993                          | 568,563     | 97,023         | 234,364     | 96,896      | 88,726     | 25,599     | 0          | 0          | 542,608     | 8,881,800     | 17,175,987     |
| 2003             | 19,607                          | 268,483     | 39,881         | 233,536     | 11,802      | 50,867     | 33,642     | 0          | 0          | 369,728     | 3,208,434     | 10,956,313     |
| 2004             | 9,071                           | 402,203     | 26,208         | 80,285      | 14,941      | 13,081     | 12,548     | 0          | 0          | 147,063     | 5,039,433     | 15,130,992     |
| 2005             | 580,754                         | 946,076     | 29,204         | (287,866)   | 37,518      | 0          | 0          | 0          | 0          | (221,144)   | 7,501,466     | 15,540,998     |
| 2006             | 347,830                         | 3,291,527   | 157,641        | 431,914     | 0           | 113,900    | 45,723     | 0          | 0          | 749,178     | 18,303,644    | 23,225,278     |
| 2007             | 4,804,679                       | 8,825,729   | 196,592        | 448,845     | 0           | 109,735    | 44,051     | 0          | 0          | 799,223     | 40,471,444    | 54,652,883     |
| 2008             | 11,871,602                      | 13,742,092  | 206,890        | 448,894     | 0           | 106,875    | 42,903     | 0          | 0          | 805,562     | 59,332,250    | 71,424,948     |
| 2009             | 46,715                          | 4,302,602   | 109,984        | 365,173     | 0           | 103,363    | 41,493     | 0          | 0          | 620,013     | 7,198,558     | 7,373,746      |
| 2010             | 46,715                          | 799,357     | 109,984        | 365,173     | 0           | 103,363    | 41,493     | 0          | 0          | 620,013     | 3,695,313     | 3,870,501      |
| 2011             | 46,715                          | 554,177     | 109,984        | 365,173     | 0           | 103,363    | 41,493     | 0          | 0          | 620,013     | 1,174,190     | 1,174,190      |
| 2012             | 0                               | 0           | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 2,275,943     | 2,451,131      |
| 2013             | 0                               | 0           | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 0             | 0              |
| 2014             | 0                               | 0           | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 0             | 0              |
| 2015             | 0                               | 0           | 0              | 0           | 0           | 0          | 0          | 0          | 0          | 0           | 0             | 0              |
| TOTAL            | 154,040,369                     | 502,106,738 | 21,500,237     | 137,240,069 | 171,274,513 | 81,842,423 | 50,370,773 | 16,067,297 | 16,612,628 | 494,907,940 | 2,588,295,221 | 2,805,643,270  |



**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed  
Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 1 of 8

| Calendar<br>Year | UPPER<br>FEATHER<br>DIVISION | NORTH BAY AQUEDUCT |            |            |            |            | SOUTH BAY AQUEDUCT |            |            |            |
|------------------|------------------------------|--------------------|------------|------------|------------|------------|--------------------|------------|------------|------------|
|                  |                              | Reach 1            | Reach 2    | Reach 3A   | Reach 3B   | Total      | Reach 1            | Reach 2    | Reach 4    | Reach 5    |
|                  | [1]                          | [2]                | [3]        | [4]        | [5]        | [6]        | [7]                | [8]        | [9]        | [10]       |
| 1961             | 0                            | 0                  | 0          | 0          | 0          | 0          | 0                  | 0          | 0          | 0          |
| 1962             | 0                            | 0                  | 0          | 0          | 0          | 0          | 37,396             | 5,522      | 0          | 0          |
| 1963             | 0                            | 0                  | 0          | 0          | 0          | 0          | 147,719            | 20,639     | 0          | 0          |
| 1964             | 0                            | 0                  | 0          | 0          | 0          | 0          | 149,750            | 15,574     | 19,405     | 0          |
| 1965             | 0                            | 0                  | 0          | 0          | 0          | 0          | 259,939            | 45,718     | 46,485     | 0          |
| 1966             | 0                            | 0                  | 0          | 0          | 0          | 0          | 270,890            | 23,799     | 63,921     | 0          |
| 1967             | 0                            | 0                  | 0          | 0          | 0          | 0          | 438,050            | 32,798     | 108,127    | 0          |
| 1968             | 0                            | 0                  | 0          | 0          | 130        | 130        | 410,919            | 44,277     | 66,973     | 706        |
| 1969             | 0                            | 0                  | 0          | 0          | 80,875     | 80,875     | 487,377            | 48,339     | 75,644     | 706        |
| 1970             | 0                            | 0                  | 0          | 0          | 94,872     | 94,872     | 381,734            | 44,852     | 64,833     | 71,376     |
| 1971             | 54                           | 0                  | 0          | 0          | 45,579     | 45,579     | 357,850            | 25,666     | 50,344     | 38,735     |
| 1972             | 40                           | 0                  | 0          | 0          | 37,895     | 37,895     | 347,941            | 30,606     | 56,800     | 100,106    |
| 1973             | 1                            | 0                  | 0          | 0          | 32,993     | 32,993     | 386,897            | 36,172     | 58,288     | 28,810     |
| 1974             | 143                          | 0                  | 0          | 0          | 46,498     | 46,498     | 456,381            | 57,081     | 83,120     | 61,623     |
| 1975             | 1,069                        | 0                  | 0          | 0          | 37,707     | 37,707     | 624,989            | 46,111     | 81,361     | 36,682     |
| 1976             | 139                          | 0                  | 0          | 0          | 60,786     | 60,786     | 614,362            | 47,862     | 123,838    | 91,096     |
| 1977             | 892                          | 0                  | 0          | 0          | 78,400     | 78,400     | 511,065            | 48,926     | 104,280    | 102,083    |
| 1978             | 39                           | 0                  | 0          | 0          | 56,318     | 56,318     | 671,195            | 125,224    | 176,855    | 50,289     |
| 1979             | 3,235                        | 0                  | 0          | 0          | 73,852     | 73,852     | 650,826            | 76,849     | 212,826    | 91,380     |
| 1980             | 416                          | 0                  | 0          | 0          | 81,769     | 81,769     | 1,128,840          | 212,974    | 242,118    | 110,786    |
| 1981             | 3,847                        | 0                  | 0          | 0          | 101,340    | 101,340    | 884,763            | 130,126    | 167,118    | 204,772    |
| 1982             | 11,075                       | 0                  | 0          | 0          | 191,987    | 191,987    | 1,156,605          | 141,718    | 249,447    | 96,020     |
| 1983             | 1,928                        | 0                  | 0          | 0          | 80,215     | 80,215     | 1,258,144          | 84,360     | 373,875    | 152,255    |
| 1984             | 3,765                        | 0                  | 0          | 0          | 139,121    | 139,121    | 1,998,984          | 113,797    | 340,344    | 34,461     |
| 1985             | 2,888                        | 0                  | 0          | 0          | 259,515    | 259,515    | 2,044,121          | 207,478    | 427,930    | 247,308    |
| 1986             | 2,787                        | 0                  | 0          | 0          | 229,508    | 229,508    | 1,834,838          | 285,908    | 305,149    | 159,054    |
| 1987             | 2,388                        | 0                  | 0          | 0          | 310,683    | 310,683    | 2,118,974          | 163,714    | 400,547    | 283,067    |
| 1988             | 545                          | 0                  | (94)       | 0          | 330,156    | 330,062    | 2,068,655          | 186,275    | 299,934    | 370,212    |
| 1989             | 1,800                        | 473,408            | 178,069    | 237,480    | 373,427    | 1,262,384  | 2,164,688          | 163,481    | 320,734    | 497,038    |
| 1990             | 788                          | 556,610            | 244,897    | 123,144    | 427,257    | 1,351,908  | 2,233,036          | 251,434    | 355,022    | 571,415    |
| 1991             | 3,654                        | 651,307            | 302,327    | 205,516    | 428,470    | 1,587,620  | 1,806,699          | 152,509    | 95,745     | 93,986     |
| 1992             | 647                          | 443,912            | 189,330    | 265,462    | 280,505    | 1,179,209  | 2,064,907          | 405,932    | 409,435    | 363,964    |
| 1993             | 3,630                        | 435,240            | 294,416    | 213,267    | 289,206    | 1,232,129  | 3,925,050          | 621,712    | 480,832    | 399,558    |
| 1994             | 2,279                        | 430,112            | 198,322    | 206,594    | 365,646    | 1,200,674  | 4,673,275          | 302,115    | 340,709    | 408,066    |
| 1995             | 2,906                        | 428,313            | 282,898    | 151,703    | 295,326    | 1,158,240  | 3,849,620          | 316,905    | 566,447    | 330,706    |
| 1996             | 8,007                        | 796,526            | 272,743    | 240,106    | 260,001    | 1,569,376  | 3,526,989          | 254,075    | 664,485    | 493,300    |
| 1997             | 7,449                        | 504,476            | 210,763    | 213,211    | 315,374    | 1,243,824  | 3,010,809          | 189,269    | 591,540    | 230,371    |
| 1998             | 798                          | 405,029            | 227,562    | 204,964    | 251,183    | 1,088,738  | 2,965,468          | 426,872    | 532,042    | 303,325    |
| 1999             | 416                          | 668,954            | 326,989    | 296,605    | 288,169    | 1,580,717  | 3,701,631          | 472,798    | 429,082    | 414,830    |
| 2000             | 505                          | 920,906            | 255,241    | 658,168    | 414,700    | 2,249,015  | 3,817,480          | 542,905    | 442,515    | 552,538    |
| 2001             | 319                          | 1,072,623          | 229,820    | 455,870    | 181,522    | 1,939,835  | 2,909,692          | 272,876    | 290,330    | 391,186    |
| 2002             | 3,627                        | 1,588,349          | 416,749    | 411,379    | 399,274    | 2,815,751  | 3,865,610          | 343,132    | 468,352    | 543,895    |
| 2003             | 3,393                        | 1,777,686          | 545,908    | 567,866    | 354,483    | 3,245,943  | 2,352,996          | 366,393    | 576,229    | 964,901    |
| 2004             | 3,455                        | 1,602,507          | 635,773    | 738,104    | 818,511    | 3,794,895  | 3,345,983          | 511,123    | 747,800    | 701,961    |
| 2005             | 3,451                        | 1,059,738          | 323,279    | 774,767    | 414,332    | 2,572,116  | 3,330,782          | 263,543    | 428,970    | 813,898    |
| 2006             | 3,100                        | 1,521,394          | 504,829    | 709,233    | 531,591    | 3,267,047  | 2,992,891          | 400,332    | 616,170    | 905,468    |
| 2007             | 3,200                        | 1,584,868          | 530,095    | 739,756    | 554,856    | 3,409,575  | 3,194,621          | 430,935    | 658,467    | 1,072,722  |
| 2008             | 3,250                        | 1,643,049          | 551,084    | 770,722    | 574,417    | 3,539,272  | 3,383,584          | 455,510    | 692,695    | 1,126,744  |
| 2009             | 3,300                        | 926,412            | 258,366    | 462,833    | 390,187    | 2,037,798  | 4,099,129          | 478,799    | 772,701    | 667,221    |
| 2010             | 3,300                        | 926,147            | 258,396    | 462,691    | 390,135    | 2,037,369  | 4,099,299          | 478,827    | 772,712    | 666,869    |
| 2011             | 3,300                        | 929,708            | 259,272    | 464,465    | 391,454    | 2,044,899  | 4,112,664          | 480,495    | 775,451    | 672,068    |
| 2012             | 3,300                        | 929,963            | 259,311    | 464,597    | 391,544    | 2,045,415  | 4,113,390          | 480,578    | 775,597    | 672,302    |
| 2013             | 3,300                        | 930,782            | 259,328    | 465,023    | 391,775    | 2,046,908  | 4,114,257          | 480,663    | 775,808    | 673,220    |
| 2014             | 3,300                        | 931,443            | 259,183    | 465,382    | 391,870    | 2,047,878  | 4,112,906          | 480,483    | 775,632    | 674,205    |
| 2015             | 3,300                        | 932,136            | 259,387    | 465,727    | 392,165    | 2,049,415  | 4,116,091          | 480,855    | 776,230    | 674,691    |
| 2016             | 3,300                        | 930,864            | 259,113    | 465,084    | 391,676    | 2,046,737  | 4,111,515          | 480,326    | 775,348    | 673,647    |
| 2017             | 3,300                        | 931,398            | 259,210    | 465,356    | 391,871    | 2,047,835  | 4,113,197          | 480,519    | 775,676    | 674,112    |
| 2018             | 3,300                        | 932,358            | 259,229    | 465,857    | 392,141    | 2,049,585  | 4,114,217          | 480,620    | 775,926    | 675,191    |
| 2019             | 3,300                        | 930,957            | 258,990    | 465,142    | 391,633    | 2,046,722  | 4,109,973          | 480,134    | 775,091    | 673,944    |
| 2020             | 3,300                        | 931,721            | 259,262    | 465,521    | 391,989    | 2,048,493  | 4,114,125          | 480,623    | 775,861    | 674,407    |
| 2021             | 3,300                        | 932,052            | 259,463    | 465,676    | 392,188    | 2,049,379  | 4,116,993          | 480,968    | 776,377    | 674,478    |
| 2022             | 3,300                        | 932,124            | 259,191    | 465,737    | 392,056    | 2,049,108  | 4,113,513          | 480,539    | 775,788    | 674,979    |
| 2023             | 3,300                        | 930,912            | 259,147    | 465,106    | 391,710    | 2,046,875  | 4,111,990          | 480,384    | 775,433    | 673,648    |
| 2024             | 3,300                        | 931,429            | 259,145    | 465,377    | 391,846    | 2,047,797  | 4,112,376          | 480,417    | 775,539    | 674,247    |
| 2025             | 3,300                        | 932,362            | 259,444    | 465,839    | 392,259    | 2,049,904  | 4,116,988          | 480,959    | 776,399    | 674,863    |
| 2026             | 3,300                        | 930,683            | 258,916    | 465,005    | 391,520    | 2,046,124  | 4,108,800          | 479,998    | 774,870    | 673,741    |
| 2027             | 3,300                        | 933,603            | 259,817    | 464,458    | 392,799    | 2,052,677  | 4,122,843          | 481,646    | 777,498    | 675,719    |
| 2028             | 3,300                        | 930,658            | 258,849    | 464,998    | 391,478    | 2,045,983  | 4,107,909          | 479,889    | 774,715    | 673,815    |
| 2029             | 3,300                        | 931,724            | 259,312    | 465,515    | 392,016    | 2,048,567  | 4,114,779          | 480,704    | 775,973    | 674,331    |
| 2030             | 3,300                        | 930,740            | 259,116    | 465,018    | 391,646    | 2,046,520  | 4,111,450          | 480,319    | 775,327    | 673,498    |
| 2031             | 3,300                        | 934,100            | 259,761    | 466,721    | 392,901    | 2,053,483  | 4,122,521          | 481,594    | 777,482    | 676,377    |
| 2032             | 3,300                        | 930,149            | 258,691    | 464,746    | 391,253    | 2,044,839  | 4,105,445          | 479,599    | 774,254    | 673,474    |
| 2033             | 3,300                        | 931,719            | 259,421    | 465,506    | 392,077    | 2,048,723  | 4,116,210          | 480,878    | 776,218    | 674,155    |
| 2034             | 3,300                        | 932,090            | 259,340    | 465,706    | 392,128    | 2,049,264  | 4,115,432          | 480,775    | 776,112    | 674,709    |
| 2035             | 3,300                        | 930,268            | 258,736    | 464,803    | 391,309    | 2,045,116  | 4,106,118          | 479,681    | 774,381    | 673,542    |
| TOTAL            | 181,025                      | 43,703,509         | 13,718,396 | 20,743,806 | 20,766,075 | 98,931,786 | 195,849,145        | 22,417,488 | 34,909,562 | 31,698,852 |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed  
Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 2 of 8

| Calendar<br>Year | SOUTH BAY AQUEDUCT (continued) |           |           |            |             | CALIFORNIA AQUEDUCT        |            |            |             |
|------------------|--------------------------------|-----------|-----------|------------|-------------|----------------------------|------------|------------|-------------|
|                  |                                |           |           |            |             | NORTH SAN JOAQUIN DIVISION |            |            |             |
|                  | Reach 6                        | Reach 7   | Reach 8   | Reach 9    | Total       | Reach 1                    | Reach 2A   | Reach 2B   | Subtotal    |
|                  | [11]                           | [12]      | [13]      | [14]       | [15]        | [16]                       | [17]       | [18]       | [19]        |
| 1961             | 0                              | 0         | 0         | 0          | 0           | 0                          | 0          | 0          | 0           |
| 1962             | 0                              | 0         | 0         | 0          | 42,918      | 0                          | 0          | 0          | 0           |
| 1963             | 0                              | 0         | 0         | 0          | 168,358     | 0                          | 0          | 0          | 0           |
| 1964             | 0                              | 0         | 0         | 0          | 184,729     | 0                          | 0          | 0          | 0           |
| 1965             | 2,634                          | 6,490     | 4,704     | 12,904     | 378,874     | 0                          | 0          | 0          | 0           |
| 1966             | 4,707                          | 10,328    | 9,233     | 25,519     | 408,397     | 0                          | 0          | 0          | 0           |
| 1967             | 2,712                          | 7,659     | 10,812    | 34,347     | 634,505     | 0                          | 0          | 0          | 0           |
| 1968             | 3,109                          | 7,960     | 10,166    | 40,372     | 584,482     | 1,001,998                  | 228,359    | 103,116    | 1,333,473   |
| 1969             | 3,944                          | 5,975     | 8,795     | 38,566     | 669,346     | 933,116                    | 301,596    | 188,194    | 1,422,906   |
| 1970             | 2,464                          | (1,991)   | 6,870     | 28,210     | 598,348     | 971,602                    | 306,198    | 151,539    | 1,429,339   |
| 1971             | 3,116                          | 9,394     | 9,895     | 31,068     | 526,068     | 1,103,021                  | 254,786    | 113,694    | 1,471,501   |
| 1972             | 5,125                          | 10,247    | 12,054    | 44,699     | 607,578     | 1,107,855                  | 230,906    | 110,109    | 1,448,870   |
| 1973             | 4,178                          | 7,500     | 4,890     | 43,816     | 570,551     | 1,150,864                  | 221,445    | 100,221    | 1,472,530   |
| 1974             | 7,812                          | 7,564     | 5,523     | 48,054     | 727,158     | 1,272,034                  | 231,383    | 117,156    | 1,620,573   |
| 1975             | 18,120                         | 14,683    | 18,325    | 68,377     | 908,648     | 1,434,736                  | 455,110    | 201,075    | 2,090,921   |
| 1976             | 10,873                         | 5,557     | 19,920    | 49,921     | 963,429     | 1,519,801                  | 217,348    | 453,400    | 2,190,549   |
| 1977             | (240)                          | 2,228     | 8,391     | 89,579     | 866,312     | 1,913,643                  | 292,380    | 196,564    | 2,402,587   |
| 1978             | (1,404)                        | 16,766    | (5,313)   | 104,078    | 1,137,690   | 1,860,456                  | 306,503    | 188,214    | 2,355,173   |
| 1979             | 1,269                          | 29,294    | 7,351     | 106,835    | 1,176,630   | 1,848,109                  | 231,339    | 145,205    | 2,224,653   |
| 1980             | 3,621                          | 24,270    | 17,404    | 110,852    | 1,850,865   | 2,365,292                  | 472,660    | 247,608    | 3,085,560   |
| 1981             | 4,038                          | 20,109    | 17,586    | 98,143     | 1,526,655   | 2,649,730                  | 435,226    | 154,191    | 3,239,147   |
| 1982             | 2,236                          | 22,870    | 21,919    | 202,590    | 1,893,405   | 3,192,710                  | 599,793    | 244,664    | 4,037,167   |
| 1983             | (2,047)                        | 48,781    | 45,573    | 216,434    | 2,177,375   | 4,244,937                  | 802,908    | 273,081    | 5,320,926   |
| 1984             | 4,449                          | 44,017    | 23,563    | 455,054    | 3,014,669   | 4,373,157                  | 808,917    | 290,728    | 5,472,802   |
| 1985             | 13,097                         | 74,565    | 57,920    | 238,067    | 3,310,486   | 4,717,323                  | 629,825    | 189,199    | 5,536,347   |
| 1986             | 11,614                         | 31,084    | 46,864    | 363,350    | 3,037,861   | 5,217,491                  | 929,919    | 359,365    | 6,506,775   |
| 1987             | 15,273                         | 25,182    | 37,949    | 416,375    | 3,461,081   | 5,292,200                  | 958,927    | 362,065    | 6,613,192   |
| 1988             | 30,207                         | 41,047    | 49,156    | 335,408    | 3,380,894   | 5,329,317                  | 822,300    | 360,336    | 6,511,953   |
| 1989             | 9,740                          | 54,881    | 114,203   | 179,323    | 3,504,088   | 5,753,966                  | 851,745    | 907,609    | 7,513,320   |
| 1990             | 31,161                         | 69,416    | 119,309   | 247,781    | 3,878,574   | 6,788,986                  | 1,066,314  | 883,822    | 8,739,122   |
| 1991             | 22,434                         | (18,690)  | 99,577    | 262,052    | 2,514,312   | 6,796,247                  | 1,067,078  | 585,008    | 8,448,333   |
| 1992             | 26,787                         | 332,012   | 98,670    | 186,640    | 3,888,347   | 9,415,121                  | 1,419,603  | 673,833    | 11,508,557  |
| 1993             | 24,845                         | 181,592   | 94,169    | 316,045    | 6,043,803   | 10,274,070                 | 1,371,074  | 900,996    | 12,546,140  |
| 1994             | 28,383                         | 90,791    | 80,942    | 416,061    | 6,404,342   | 8,451,199                  | 1,325,511  | 802,217    | 10,578,927  |
| 1995             | 29,298                         | 64,012    | 80,278    | 373,657    | 5,610,923   | 10,406,784                 | 2,386,507  | 959,685    | 13,752,976  |
| 1996             | (1,020)                        | 60,610    | 11,672    | 312,097    | 5,322,208   | 10,246,985                 | 2,604,651  | 628,177    | 13,479,813  |
| 1997             | 18,428                         | 95,321    | 15,691    | 335,566    | 4,486,995   | 10,429,338                 | 1,098,381  | 2,084,859  | 13,612,578  |
| 1998             | 26,323                         | 54,255    | 611,290   | 658,090    | 5,577,665   | 11,410,436                 | 1,449,411  | 5,364,368  | 18,224,215  |
| 1999             | 49,762                         | 34,829    | 426,694   | 2,030,604  | 7,560,230   | 11,446,675                 | 1,365,947  | 1,301,570  | 14,114,192  |
| 2000             | 135,909                        | 87,815    | 185,985   | 641,445    | 6,406,592   | 12,637,999                 | 905,934    | 648,421    | 14,192,354  |
| 2001             | 112,970                        | 188,989   | 197,745   | 1,048,191  | 5,411,979   | 17,559,077                 | 1,375,177  | 752,734    | 19,686,988  |
| 2002             | 143,886                        | 171,491   | 501,630   | 2,781,431  | 8,819,427   | 14,429,951                 | 861,125    | 622,521    | 15,913,597  |
| 2003             | 78,084                         | 97,968    | 248,068   | 987,782    | 5,672,421   | 16,535,948                 | 1,724,007  | 749,673    | 19,009,628  |
| 2004             | 156,691                        | 179,277   | 205,603   | 454,479    | 6,302,917   | 14,177,440                 | 1,308,095  | 733,356    | 16,218,891  |
| 2005             | 143,175                        | 202,435   | 135,636   | 224,528    | 5,542,967   | 12,551,578                 | 1,935,671  | 873,917    | 15,361,166  |
| 2006             | 131,191                        | 165,321   | 204,183   | 581,861    | 5,997,417   | 14,805,852                 | 1,332,319  | 703,409    | 16,841,580  |
| 2007             | 136,411                        | 172,607   | 222,778   | 630,651    | 6,519,192   | 15,666,838                 | 1,434,005  | 804,192    | 17,905,035  |
| 2008             | 140,856                        | 178,739   | 237,550   | 669,594    | 6,885,272   | 16,586,177                 | 1,515,807  | 882,669    | 18,984,653  |
| 2009             | 90,837                         | 84,173    | 102,317   | 502,075    | 6,797,252   | 11,356,421                 | 2,164,030  | 721,285    | 14,241,736  |
| 2010             | 90,848                         | 84,184    | 102,329   | 502,136    | 6,797,204   | 11,355,782                 | 2,163,388  | 721,092    | 14,240,262  |
| 2011             | 91,155                         | 84,471    | 102,675   | 503,834    | 6,822,813   | 11,392,790                 | 2,171,770  | 723,555    | 14,288,115  |
| 2012             | 91,169                         | 84,483    | 102,690   | 503,909    | 6,824,118   | 11,394,497                 | 2,172,253  | 723,710    | 14,290,460  |
| 2013             | 91,171                         | 84,488    | 102,696   | 503,934    | 6,826,237   | 11,398,180                 | 2,174,015  | 724,252    | 14,296,447  |
| 2014             | 91,120                         | 84,439    | 102,636   | 503,642    | 6,825,063   | 11,398,634                 | 2,175,753  | 724,759    | 14,299,146  |
| 2015             | 91,190                         | 84,503    | 102,717   | 504,036    | 6,830,313   | 11,404,761                 | 2,176,876  | 725,136    | 14,306,773  |
| 2016             | 91,096                         | 84,416    | 102,610   | 503,507    | 6,822,465   | 11,395,071                 | 2,174,621  | 724,401    | 14,294,093  |
| 2017             | 91,129                         | 84,448    | 102,646   | 503,693    | 6,825,420   | 11,398,842                 | 2,175,604  | 724,716    | 14,299,162  |
| 2018             | 91,135                         | 84,452    | 102,652   | 503,721    | 6,827,914   | 11,403,168                 | 2,177,675  | 725,352    | 14,306,195  |
| 2019             | 91,051                         | 84,374    | 102,558   | 503,260    | 6,820,385   | 11,393,469                 | 2,175,070  | 724,519    | 14,293,058  |
| 2020             | 91,146                         | 84,463    | 102,668   | 503,793    | 6,827,086   | 11,401,016                 | 2,176,213  | 724,910    | 14,302,139  |
| 2021             | 91,218                         | 84,529    | 102,748   | 504,185    | 6,831,496   | 11,405,600                 | 2,176,536  | 725,043    | 14,307,179  |
| 2022             | 91,121                         | 84,439    | 102,637   | 503,645    | 6,826,661   | 11,401,546                 | 2,177,233  | 725,213    | 14,303,992  |
| 2023             | 91,107                         | 84,428    | 102,622   | 503,571    | 6,823,183   | 11,395,800                 | 2,174,655  | 724,416    | 14,294,871  |
| 2024             | 91,105                         | 84,425    | 102,620   | 503,563    | 6,824,292   | 11,397,931                 | 2,175,800  | 724,766    | 14,298,497  |
| 2025             | 91,209                         | 84,522    | 102,738   | 504,144    | 6,831,822   | 11,406,579                 | 2,177,255  | 725,260    | 14,309,094  |
| 2026             | 91,025                         | 84,352    | 102,530   | 503,117    | 6,818,433   | 11,391,153                 | 2,174,611  | 724,366    | 14,290,130  |
| 2027             | 91,342                         | 84,645    | 102,887   | 504,872    | 6,841,452   | 11,417,750                 | 2,179,250  | 725,929    | 14,322,929  |
| 2028             | 91,002                         | 84,330    | 102,502   | 502,985    | 6,817,147   | 11,389,977                 | 2,174,690  | 724,378    | 14,289,045  |
| 2029             | 91,164                         | 84,480    | 102,688   | 503,891    | 6,828,010   | 11,401,827                 | 2,176,111  | 724,889    | 14,302,827  |
| 2030             | 91,097                         | 84,417    | 102,611   | 503,512    | 6,822,231   | 11,394,591                 | 2,174,340  | 724,315    | 14,293,246  |
| 2031             | 91,322                         | 84,626    | 102,864   | 504,757    | 6,841,543   | 11,418,937                 | 2,180,445  | 726,284    | 14,325,666  |
| 2032             | 90,945                         | 84,277    | 102,440   | 502,676    | 6,813,110   | 11,385,321                 | 2,173,886  | 724,107    | 14,283,314  |
| 2033             | 91,203                         | 84,516    | 102,732   | 504,109    | 6,830,021   | 11,403,573                 | 2,175,884  | 724,838    | 14,304,295  |
| 2034             | 91,174                         | 84,489    | 102,697   | 503,941    | 6,829,329   | 11,403,798                 | 2,176,862  | 725,124    | 14,305,784  |
| 2035             | 90,961                         | 84,292    | 102,458   | 502,763    | 6,814,196   | 11,386,528                 | 2,174,058  | 724,166    | 14,284,752  |
| TOTAL            | 4,056,263                      | 5,214,911 | 7,112,191 | 30,137,767 | 331,396,179 | 597,563,601                | 96,855,074 | 45,973,541 | 740,392,216 |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 3 of 8

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |             |            |            |            |             |                            |            |            |   |
|----------------------|---------------------------------|-------------|------------|------------|------------|-------------|----------------------------|------------|------------|---|
|                      | SAN LUIS DIVISION               |             |            |            |            |             | SOUTH SAN JOAQUIN DIVISION |            |            |   |
|                      | Reach 3                         | Reach 4     | Reach 5    | Reach 6    | Reach 7    | Subtotal    | Reach 8C                   | Reach 8D   | Reach 9    |   |
|                      | [20]                            | [21]        | [22]       | [23]       | [24]       | [25]        | [26]                       | [27]       | [28]       |   |
| 1961                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1962                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1963                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1964                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1965                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1966                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1967                 | 0                               | 0           | 0          | 0          | 0          | 0           | 0                          | 0          | 0          | 0 |
| 1968                 | 120.038                         | 428.308     | 130.105    | 44.591     | 104.033    | 827.075     |                            |            |            |   |
| 1969                 | 90.033                          | 460.907     | 184.467    | 35.696     | 235.322    | 1,006.425   | 22.013                     | 134.760    | 86.103     |   |
| 1970                 | 89.547                          | 484.300     | 226.002    | 66.070     | 192.582    | 1,058.501   | 26.207                     | 156.981    | 128.273    |   |
| 1971                 | 99.917                          | 541.574     | 175.592    | 64.193     | 158.170    | 1,039.446   | 32.312                     | 190.753    | 118.372    |   |
| 1972                 | 116.708                         | 647.979     | 174.519    | 73.670     | 154.783    | 1,167.659   | 35.031                     | 187.242    | 130.396    |   |
| 1973                 | 116.791                         | 611.705     | 158.145    | 58.344     | 153.955    | 1,098.940   | 51.150                     | 225.747    | 127.530    |   |
| 1974                 | 120.309                         | 671.455     | 150.835    | 63.905     | 150.230    | 1,156.734   | 34,752                     | 199,127    | 131.298    |   |
| 1975                 | 133.593                         | 839.285     | 178.974    | 81.478     | 157.586    | 1,390.916   | 78.523                     | 250.377    | 159.006    |   |
| 1976                 | 54.938                          | 883.956     | 220.832    | 90.305     | 174.835    | 1,424.866   | 39.348                     | 133.933    | 123.424    |   |
| 1977                 | 73.331                          | 1,114.465   | 270.734    | 98.132     | 196.311    | 1,752.973   | 38,086                     | 121.348    | 178.078    |   |
| 1978                 | 45.867                          | 898.992     | 203.261    | 106.938    | 203.079    | 1,458.137   | 45,552                     | 178.805    | 129.928    |   |
| 1979                 | 223.973                         | 842.508     | 144.055    | 99.670     | 180.734    | 1,490.940   | 69.973                     | 150.679    | 129.756    |   |
| 1980                 | 243.507                         | 1,176.463   | 222.942    | 127.625    | 281.860    | 2,052.397   | 57.726                     | 274.848    | 185.155    |   |
| 1981                 | 265.766                         | 1,065.358   | 193.048    | 90.533     | 1,612.157  | 3,226.862   | 80.121                     | 198.256    | 144.187    |   |
| 1982                 | 279.250                         | 1,241.285   | 209.371    | 114.421    | 1,433.180  | 3,277.507   | 59.424                     | 269.086    | 233.494    |   |
| 1983                 | 214.468                         | 1,949.017   | 339.809    | 131.377    | 2,143.678  | 4,778.349   | 49.448                     | 383.476    | 223.078    |   |
| 1984                 | 241.273                         | 2,233.969   | 335.166    | 163.858    | 2,111.386  | 5,085.652   | 42.062                     | 458.489    | 300.924    |   |
| 1985                 | 322.068                         | 2,882.583   | 360.431    | 176.577    | 1,603.532  | 5,345.191   | 58.820                     | 495.500    | 213.368    |   |
| 1986                 | 416.027                         | 2,996.792   | 472.551    | 252.188    | 601.250    | 4,738.808   | 90.730                     | 478.786    | 596.800    |   |
| 1987                 | 362.738                         | 3,104.592   | 424.107    | 236.349    | 439.232    | 4,567.018   | 113.962                    | 412.042    | 446.067    |   |
| 1988                 | 365.209                         | 2,954.186   | 456.864    | 231.754    | 639.242    | 4,647.255   | 96.728                     | 379.073    | 417.991    |   |
| 1989                 | 263.171                         | 3,182.472   | 393.589    | 332.986    | 633.419    | 4,805.637   | 83.282                     | 389.698    | 400.853    |   |
| 1990                 | 397.353                         | 4,011.110   | 579.073    | 464.639    | 729.132    | 6,181.307   | 111.019                    | 436.849    | 515.611    |   |
| 1991                 | 256.473                         | 4,388.184   | 543.760    | 728.156    | 765.765    | 6,682.338   | 104,414                    | 496.794    | 465.940    |   |
| 1992                 | 302.021                         | 3,792.401   | 795.587    | 363.134    | 815.590    | 6,068.733   | 118.315                    | 511.982    | 417.871    |   |
| 1993                 | 439.725                         | 4,337.616   | 1,008.394  | 551.849    | 734.796    | 7,072.380   | 230.338                    | 745.885    | 490.159    |   |
| 1994                 | 282.579                         | 4,376.461   | 816.129    | 396.768    | 492.860    | 6,364.797   | 125.398                    | 602.404    | 572.557    |   |
| 1995                 | 107.995                         | 5,026.076   | 1,066.971  | 440.006    | 1,356.668  | 7,997.716   | 185.681                    | 657.282    | 432.072    |   |
| 1996                 | 1,003.229                       | 4,738.221   | 931.944    | 683.323    | 1,034.376  | 8,391.093   | 112.062                    | 416.294    | 472.350    |   |
| 1997                 | 859.665                         | 5,761.996   | 924.289    | 254.934    | 646.209    | 8,447.093   | 128.190                    | 449.316    | 728.436    |   |
| 1998                 | 690.845                         | 5,522.567   | 1,242.589  | 534.931    | 654.538    | 8,645.470   | 115.748                    | 457.845    | 429.433    |   |
| 1999                 | 697.893                         | 5,684.969   | 1,219.793  | 531.972    | 670.006    | 8,804.633   | 104.822                    | 396.623    | 409.411    |   |
| 2000                 | 712.071                         | 5,849.518   | 1,033.992  | 528.537    | 876.030    | 9,000.148   | 104.381                    | 467.347    | 513.824    |   |
| 2001                 | (558.917)                       | 7,151.253   | 851.983    | 373.030    | 679.856    | 8,497.205   | 58.436                     | 553.295    | 603.147    |   |
| 2002                 | 1,071.739                       | 5,193.633   | 673.240    | 255.190    | 738.467    | 7,932.269   | 55.252                     | 729.942    | 417.109    |   |
| 2003                 | 1,026.535                       | 6,040.701   | 750.339    | 304.182    | 620.749    | 8,742.506   | 62.618                     | 674.449    | 643.946    |   |
| 2004                 | 655.509                         | 7,033.601   | 725.042    | 344.853    | 606.863    | 9,365.868   | 37.161                     | 484.074    | 337.980    |   |
| 2005                 | 543.326                         | 6,052.036   | 975.929    | 396.253    | 792.532    | 8,760.076   | 26.876                     | 389.759    | 285.162    |   |
| 2006                 | 900.505                         | 6,872.937   | 1,103.796  | 449.812    | 801.602    | 10,128.652  | 44.509                     | 512.149    | 416.311    |   |
| 2007                 | 922.828                         | 7,049.871   | 1,482.975  | 462.406    | 826.715    | 10,744.795  | 46,041                     | 529.672    | 430.539    |   |
| 2008                 | 896.429                         | 7,428.878   | 1,857.947  | 473.214    | 848.446    | 11,504.914  | 47.371                     | 544.972    | 442.974    |   |
| 2009                 | 809.554                         | 4,574.988   | 979.216    | 461.417    | 630.100    | 7,455.275   | 273.491                    | 1,039.646  | 852.726    |   |
| 2010                 | 808.748                         | 4,572.037   | 979.333    | 461.182    | 629.812    | 7,451.112   | 273.514                    | 1,039.295  | 852.382    |   |
| 2011                 | 817.259                         | 4,598.204   | 984.364    | 463.987    | 633.594    | 7,497.408   | 274.454                    | 1,043.544  | 855.949    |   |
| 2012                 | 817.614                         | 4,599.964   | 984.515    | 464.147    | 633.802    | 7,500.042   | 274.500                    | 1,043.847  | 856.215    |   |
| 2013                 | 819.431                         | 4,607.370   | 984.564    | 464.760    | 634.579    | 7,510.704   | 274.532                    | 1,044.873  | 857.169    |   |
| 2014                 | 821.880                         | 4,615.848   | 983.992    | 465.409    | 635.372    | 7,522.501   | 274.404                    | 1,045.783  | 858.090    |   |
| 2015                 | 822.253                         | 4,619.118   | 984.762    | 465.747    | 635.834    | 7,527.714   | 274.618                    | 1,046.556  | 858.720    |   |
| 2016                 | 820.960                         | 4,611.545   | 983.728    | 465.032    | 634.882    | 7,516.147   | 274.320                    | 1,045.085  | 857.469    |   |
| 2017                 | 821.615                         | 4,615.016   | 984.091    | 465.350    | 635.301    | 7,521.373   | 274.427                    | 1,045.713  | 858.011    |   |
| 2018                 | 823.752                         | 4,623.708   | 984.148    | 466.070    | 636.214    | 7,533.892   | 274.466                    | 1,046.917  | 859.134    |   |
| 2019                 | 821.949                         | 4,614.380   | 983.247    | 465.223    | 635.101    | 7,519.900   | 274.201                    | 1,045.267  | 857.700    |   |
| 2020                 | 822.057                         | 4,617.229   | 984.284    | 465.549    | 635.562    | 7,524.681   | 274.484                    | 1,046.096  | 858.345    |   |
| 2021                 | 821.583                         | 4,617.139   | 985.053    | 465.607    | 635.673    | 7,525.055   | 274.689                    | 1,046.410  | 858.547    |   |
| 2022                 | 823.438                         | 4,622.114   | 984.000    | 465.926    | 636.024    | 7,531.502   | 274.422                    | 1,046.638  | 858.890    |   |
| 2023                 | 820.859                         | 4,611.441   | 983.857    | 465.034    | 634.893    | 7,516.084   | 274.355                    | 1,045.125  | 857.492    |   |
| 2024                 | 822.093                         | 4,616.339   | 983.839    | 465.438    | 635.398    | 7,523.107   | 274.364                    | 1,045.784  | 858.112    |   |
| 2025                 | 822.430                         | 4,620.342   | 984.972    | 465.864    | 635.991    | 7,529.599   | 274.677                    | 1,046.809  | 858.931    |   |
| 2026                 | 821.758                         | 4,612.973   | 982.968    | 465.084    | 634.912    | 7,517.695   | 274.122                    | 1,044.956  | 857.442    |   |
| 2027                 | 823.033                         | 4,626.057   | 986.396    | 466.461    | 636.813    | 7,538.760   | 275.069                    | 1,048.193  | 860.051    |   |
| 2028                 | 822.116                         | 4,613.794   | 982.710    | 465.130    | 634.956    | 7,518.706   | 274.057                    | 1,044.959  | 857.478    |   |
| 2029                 | 821.744                         | 4,616.444   | 984.478    | 465.500    | 635.508    | 7,523.674   | 274.535                    | 1,046.069  | 858.299    |   |
| 2030                 | 820.649                         | 4,610.335   | 983.740    | 464.932    | 634.758    | 7,514.414   | 274.321                    | 1,044.929  | 857.318    |   |
| 2031                 | 824.537                         | 4,631.567   | 986.172    | 466.894    | 637.350    | 7,546.520   | 275.024                    | 1,048.846  | 860.692    |   |
| 2032                 | 821.903                         | 4,611.536   | 982.108    | 464.892    | 634.626    | 7,515.065   | 273.890                    | 1,044.396  | 857.023    |   |
| 2033                 | 821.051                         | 4,614.662   | 984.905    | 465.390    | 635.391    | 7,521.399   | 274.642                    | 1,046.010  | 858.190    |   |
| 2034                 | 822.432                         | 4,619.425   | 984.579    | 465.755    | 635.836    | 7,528.027   | 274.570                    | 1,046.519  | 858.707    |   |
| 2035                 | 821.905                         | 4,611.945   | 982.278    | 464.939    | 634.696    | 7,515.763   | 273.936                    | 1,044.523  | 857.120    |   |
| TOTAL                | 37,624,928                      | 262,049,700 | 50,771,470 | 23,834,568 | 45,394,734 | 419,675,400 | 10,431,966                 | 43,948,727 | 36,785,115 |   |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 4 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued)        |            |            |            |            |             |            |            |             |
|------------------|----------------------------------------|------------|------------|------------|------------|-------------|------------|------------|-------------|
|                  | SOUTH SAN JOAQUIN DIVISION (continued) |            |            |            |            |             |            |            |             |
|                  | Reach 10A                              | Reach 11B  | Reach 12D  | Reach 12E  | Reach 13B  | Reach 14A   | Reach 14B  | Reach 14C  | Reach 15A   |
|                  | [29]                                   | [30]       | [31]       | [32]       | [33]       | [34]        | [35]       | [36]       | [37]        |
| 1961             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1962             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1963             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1964             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1965             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1966             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1967             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1968             | 0                                      | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1969             | 83.706                                 | 59.077     | 0          | 0          | 0          | 0           | 0          | 0          | 0           |
| 1970             | 118.046                                | 85.758     | 94.171     | 123.374    | 152.424    | 0           | 0          | 0          | 0           |
| 1971             | 129.811                                | 80.282     | 95.075     | 91.389     | 167.142    | 691.791     | 151.979    | 111.623    | 529.723     |
| 1972             | 117.625                                | 84.287     | 98.647     | 115.592    | 146.096    | 877.535     | 124.831    | 101.479    | 609.058     |
| 1973             | 117.706                                | 92.257     | 74.238     | 114.843    | 221.385    | 961.855     | 120.106    | 99.429     | 692.748     |
| 1974             | 141.658                                | 98.103     | 74.914     | 193.523    | 141.540    | 898.272     | 143.866    | 115.649    | 853.098     |
| 1975             | 207.908                                | 124.105    | 61.799     | 117.194    | 108.154    | 1,156.757   | 180.614    | 119.889    | 988.045     |
| 1976             | 139.134                                | 69.715     | 33.655     | 147.908    | 134.063    | 1,124.051   | 177.086    | 114.133    | 1,037.799   |
| 1977             | 194.086                                | 108.644    | 91.547     | 175.039    | 137.975    | 1,397.006   | 203.837    | 119.467    | 1,339.196   |
| 1978             | 168.634                                | 106.702    | 72.585     | 170.578    | 151.120    | 1,254.043   | 139.662    | 132.224    | 1,265.813   |
| 1979             | 175.107                                | 85.942     | 56.331     | 174.147    | 150.029    | 1,490.461   | 201.935    | 260.981    | 1,216.126   |
| 1980             | 284.207                                | 120.896    | 123.120    | 167.249    | 164.749    | 1,988.619   | 189.132    | 238.607    | 1,437.614   |
| 1981             | 199.927                                | 76.965     | 33.322     | 113.202    | 171.669    | 1,741.488   | 163.934    | 161.182    | 1,799.832   |
| 1982             | 264.947                                | 158.178    | 142.631    | 224.170    | 224.051    | 1,793.867   | 195.086    | 15.768     | 1,933.859   |
| 1983             | 308.801                                | 136.350    | 124.724    | 203.733    | 217.324    | 2,421.794   | 199.708    | 181.879    | 2,550.842   |
| 1984             | 396.448                                | 163.331    | 108.212    | 188.724    | 245.764    | 3,312.127   | 329.490    | 204.332    | 3,215.901   |
| 1985             | 298.337                                | 198.368    | 154.995    | 194.327    | 360.308    | 3,463.178   | 237.127    | 180.068    | 3,427.049   |
| 1986             | 422.493                                | 248.170    | 242.660    | 346.410    | 349.369    | 3,781.427   | 320.984    | 360.156    | 3,574.451   |
| 1987             | 488.226                                | 334.059    | 325.697    | 469.378    | 322.824    | 3,731.912   | 463.757    | 238.813    | 4,080.465   |
| 1988             | 532.489                                | 290.881    | 220.658    | 374.653    | 318.253    | 3,451.893   | 411.110    | 313.806    | 3,746.920   |
| 1989             | 733.030                                | 268.025    | 207.487    | 595.433    | 380.883    | 3,512.884   | 333.996    | 220.978    | 3,751.081   |
| 1990             | 651.465                                | 363.652    | 225.171    | 480.738    | 677.729    | 4,021.727   | 439.953    | 212.851    | 4,381.643   |
| 1991             | 716.328                                | 328.683    | 269.873    | 371.312    | 433.313    | 4,309.082   | 424.704    | 273.169    | 4,566.702   |
| 1992             | 574.145                                | 334.579    | 270.768    | 409.314    | 423.717    | 4,734.368   | 729.211    | 571.412    | 4,270.793   |
| 1993             | 723.450                                | 413.722    | 278.375    | 496.851    | 594.201    | 5,182.830   | 664.063    | 423.780    | 5,266.124   |
| 1994             | 703.493                                | 346.600    | 239.873    | 482.301    | 445.909    | 4,012.614   | 414.899    | 254.393    | 3,727.019   |
| 1995             | 881.902                                | 405.045    | 242.253    | 622.654    | 507.102    | 4,607.154   | 309.283    | 315.905    | 3,973.757   |
| 1996             | 984.784                                | 367.570    | 238.622    | 519.560    | 604.736    | 4,892.967   | 214.773    | 187.784    | 4,331.630   |
| 1997             | 1,864.113                              | 309.696    | 254.090    | 516.115    | 429.771    | 5,094.202   | 261.221    | 275.610    | 4,011.366   |
| 1998             | 1,011.284                              | 295.927    | 170.556    | 384.226    | 484.072    | 4,753.508   | 309.440    | 248.178    | 4,695.541   |
| 1999             | 1,125.514                              | 373.814    | 171.495    | 399.331    | 504.020    | 5,041.004   | 351.551    | 231.583    | 4,753.855   |
| 2000             | 924.210                                | 407.081    | 329.756    | 651.715    | 567.781    | 5,957.878   | 343.438    | 141.041    | 5,385.171   |
| 2001             | 870.742                                | 413.016    | 893.071    | 519.027    | 660.369    | 4,701.148   | (133.796)  | (94.419)   | 6,007.151   |
| 2002             | 1,309.728                              | 381.311    | 295.967    | 959.788    | 862.655    | 5,969.394   | 39.304     | 256.180    | 5,598.378   |
| 2003             | 817.168                                | 338.931    | 233.756    | 690.414    | 612.296    | 6,183.504   | (128.254)  | 24.819     | 6,974.920   |
| 2004             | 609.367                                | 244.096    | 173.363    | 623.894    | 584.409    | 7,283.893   | (107.944)  | (142.634)  | 8,848.430   |
| 2005             | 884.677                                | 212.724    | 119.691    | 851.556    | 469.679    | 6,312.322   | (169.616)  | (182.745)  | 5,900.809   |
| 2006             | 779.349                                | 259.016    | 155.809    | 735.600    | 545.429    | 6,846.089   | 247.423    | 208.109    | 7,734.486   |
| 2007             | 806.084                                | 267.872    | 161.061    | 760.885    | 564.124    | 7,300.049   | 255.825    | 215.190    | 8,166.971   |
| 2008             | 829.373                                | 275.610    | 165.708    | 782.871    | 580.421    | 7,614.095   | 263.210    | 221.403    | 8,471.420   |
| 2009             | 866.629                                | 648.969    | 589.638    | 917.194    | 964.134    | 5,962.564   | 813.829    | 562.199    | 5,679.840   |
| 2010             | 866.734                                | 648.784    | 589.284    | 917.029    | 963.862    | 5,961.567   | 813.474    | 561.935    | 5,679.527   |
| 2011             | 869.659                                | 651.382    | 591.931    | 920.549    | 967.722    | 5,982.017   | 816.922    | 564.345    | 5,698.023   |
| 2012             | 869.791                                | 651.562    | 592.153    | 920.774    | 967.987    | 5,983.449   | 817.184    | 564.530    | 5,699.191   |
| 2013             | 869.834                                | 652.136    | 593.057    | 921.383    | 968.832    | 5,987.257   | 818.153    | 565.239    | 5,701.520   |
| 2014             | 869.331                                | 652.595    | 594.073    | 921.725    | 969.511    | 5,989.245   | 819.123    | 565.970    | 5,701.391   |
| 2015             | 870.011                                | 653.081    | 594.495    | 922.420    | 970.233    | 5,993.763   | 819.721    | 566.380    | 5,705.755   |
| 2016             | 869.096                                | 652.189    | 593.538    | 921.234    | 968.909    | 5,986.134   | 818.504    | 565.526    | 5,698.987   |
| 2017             | 869.418                                | 652.564    | 593.976    | 921.717    | 969.465    | 5,989.210   | 819.036    | 565.900    | 5,701.594   |
| 2018             | 869.467                                | 652.235    | 595.034    | 922.432    | 970.459    | 5,993.680   | 820.176    | 566.731    | 5,704.324   |
| 2019             | 868.670                                | 652.253    | 593.868    | 921.186    | 969.002    | 5,985.694   | 818.763    | 565.732    | 5,697.646   |
| 2020             | 869.589                                | 652.792    | 594.250    | 922.000    | 969.801    | 5,991.023   | 819.366    | 566.138    | 5,703.082   |
| 2021             | 870.267                                | 653.021    | 594.262    | 922.430    | 970.145    | 5,993.891   | 819.529    | 566.227    | 5,706.485   |
| 2022             | 869.338                                | 653.069    | 594.837    | 922.223    | 970.213    | 5,992.338   | 819.934    | 566.562    | 5,703.212   |
| 2023             | 869.210                                | 652.221    | 593.530    | 921.303    | 968.959    | 5,986.573   | 818.523    | 565.532    | 5,699.534   |
| 2024             | 869.194                                | 652.585    | 594.127    | 921.678    | 969.496    | 5,988.900   | 819.152    | 565.994    | 5,700.845   |
| 2025             | 870.196                                | 653.238    | 594.650    | 922.634    | 970.465    | 5,995.155   | 819.923    | 566.521    | 5,707.038   |
| 2026             | 868.425                                | 652.063    | 593.689    | 920.917    | 968.716    | 5,983.950   | 818.519    | 565.560    | 5,696.003   |
| 2027             | 871.452                                | 654.109    | 595.393    | 923.892    | 971.761    | 6,003.344   | 820.983    | 567.249    | 5,715.005   |
| 2028             | 868.196                                | 652.044    | 593.780    | 920.835    | 968.689    | 5,983.375   | 818.567    | 565.604    | 5,695.087   |
| 2029             | 869.759                                | 652.789    | 594.158    | 922.048    | 969.802    | 5,991.375   | 819.306    | 566.088    | 5,703.726   |
| 2030             | 869.107                                | 652.101    | 593.390    | 921.149    | 968.781    | 5,985.586   | 818.351    | 565.411    | 5,698.695   |
| 2031             | 871.255                                | 654.454    | 596.057    | 924.201    | 972.270    | 6,005.198   | 821.648    | 567.742    | 5,715.582   |
| 2032             | 867.665                                | 651.687    | 593.487    | 920.316    | 968.158    | 5,979.986   | 818.139    | 565.312    | 5,691.760   |
| 2033             | 870.136                                | 652.788    | 593.957    | 922.150    | 969.803    | 5,992.119   | 819.173    | 565.974    | 5,705.117   |
| 2034             | 869.848                                | 653.047    | 594.526    | 922.340    | 970.181    | 5,993.218   | 819.717    | 566.386    | 5,705.023   |
| 2035             | 867.814                                | 651.770    | 593.539    | 920.444    | 968.282    | 5,980.831   | 818.229    | 565.374    | 5,692.634   |
| TOTAL            | 46,059,593                             | 26,941,568 | 23,354,395 | 40,437,221 | 40,982,493 | 305,530,230 | 31,120,872 | 22,204,233 | 299,022,412 |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to Be Reimbursed  
Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 5 of 8

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)           |               |                    |            |               |                 |            |           |            |
|----------------------|-------------------------------------------|---------------|--------------------|------------|---------------|-----------------|------------|-----------|------------|
|                      | SOUTH SAN JOAQUIN<br>DIVISION (continued) |               | TEHACHAPI DIVISION |            |               | MOJAVE DIVISION |            |           |            |
|                      | Reach 16A                                 | Subtotal      | Reach 17E          | Reach 17F  | Subtotal      | Reach 18A       | Reach 19   | Reach 19C | Reach 20A  |
|                      | [38]                                      | [39]          | [40]               | [41]       | [42]          | [43]            | [44]       | [45]      | [46]       |
| 1961                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1962                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1963                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1964                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1965                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1966                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1967                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1968                 | 0                                         | 0             | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1969                 | 0                                         | 385,659       | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1970                 | 0                                         | 885,234       | 0                  | 0          | 0             | 0               | 0          | 0         | 0          |
| 1971                 | 10,291                                    | 2,400,543     | 3,471              | 0          | 3,471         | 0               | 0          | 0         | 0          |
| 1972                 | 1,106,884                                 | 3,734,703     | 1,424,782          | 28,127     | 1,452,909     | 36,699          | 135,675    | 0         | 130,711    |
| 1973                 | 1,243,941                                 | 4,142,935     | 1,777,260          | 49,949     | 1,827,209     | 36,207          | 146,739    | 0         | 161,838    |
| 1974                 | 1,343,972                                 | 4,369,772     | 2,298,091          | 16,259     | 2,314,350     | 30,525          | 90,404     | 0         | 115,571    |
| 1975                 | 1,537,862                                 | 5,090,233     | 2,403,430          | 35,193     | 2,438,623     | 40,588          | 122,584    | 0         | 137,684    |
| 1976                 | 1,727,428                                 | 5,001,677     | 2,776,194          | 126,653    | 2,902,847     | 118,610         | 201,215    | 0         | 182,927    |
| 1977                 | 1,961,081                                 | 6,065,390     | 3,845,464          | 83,936     | 3,929,400     | 93,565          | 226,906    | 0         | 180,884    |
| 1978                 | 1,922,950                                 | 5,738,596     | 2,954,313          | 42,637     | 2,996,950     | 91,815          | 200,759    | 0         | 215,673    |
| 1979                 | 1,798,566                                 | 5,960,033     | 3,539,402          | 45,997     | 3,585,399     | 99,670          | 307,386    | 0         | 261,205    |
| 1980                 | 2,231,456                                 | 7,463,378     | 4,749,245          | 54,806     | 4,804,051     | 116,487         | 446,175    | 0         | 290,719    |
| 1981                 | 2,762,773                                 | 7,646,858     | 5,485,957          | 64,886     | 5,550,843     | 316,590         | 585,003    | 0         | 325,112    |
| 1982                 | 2,961,383                                 | 8,475,944     | 6,349,080          | 55,997     | 6,405,077     | 447,739         | 638,615    | 0         | 275,763    |
| 1983                 | 4,302,165                                 | 11,303,322    | 14,153,033         | 96,397     | 14,249,430    | 345,229         | 564,698    | 0         | 368,139    |
| 1984                 | 5,077,824                                 | 14,043,628    | 18,448,383         | 77,201     | 18,525,584    | 267,497         | 563,588    | 0         | 413,443    |
| 1985                 | 5,683,454                                 | 14,964,899    | 18,134,698         | 137,928    | 18,272,626    | 298,932         | 475,028    | 0         | 450,444    |
| 1986                 | 5,780,666                                 | 16,593,102    | 19,297,129         | 109,938    | 19,407,067    | 703,413         | 350,906    | 0         | 347,690    |
| 1987                 | 5,636,043                                 | 17,063,245    | 17,398,908         | 98,355     | 17,497,263    | 1,261,056       | 558,996    | 0         | 818,475    |
| 1988                 | 5,150,238                                 | 15,704,693    | 17,697,838         | 138,405    | 17,836,243    | 1,242,139       | 560,911    | 0         | 585,014    |
| 1989                 | 5,458,633                                 | 16,336,263    | 17,641,151         | 88,488     | 17,729,639    | 1,049,615       | 283,065    | 0         | 366,590    |
| 1990                 | 6,440,643                                 | 18,959,051    | 19,995,760         | 99,868     | 20,095,628    | 1,298,537       | 229,083    | 0         | 469,502    |
| 1991                 | 5,805,189                                 | 18,565,503    | 19,903,346         | 131,558    | 20,034,904    | 1,432,360       | 665,443    | 0         | 1,025,089  |
| 1992                 | 6,471,964                                 | 19,838,439    | 18,194,788         | 279,610    | 18,474,398    | 1,167,898       | 738,238    | 0         | 666,181    |
| 1993                 | 7,583,165                                 | 23,092,943    | 19,051,939         | 199,640    | 19,251,579    | 1,868,745       | 606,763    | 0         | 1,232,409  |
| 1994                 | 7,142,378                                 | 19,069,838    | 17,354,702         | 204,963    | 17,559,665    | 1,699,479       | 763,493    | 0         | 1,145,700  |
| 1995                 | 6,540,575                                 | 19,680,665    | 19,360,033         | 191,516    | 19,551,549    | 1,284,146       | 614,314    | 0         | 1,941,939  |
| 1996                 | 7,065,052                                 | 20,408,184    | 19,041,451         | 237,846    | 19,279,297    | 1,163,708       | 576,674    | 0         | 1,335,804  |
| 1997                 | 7,387,904                                 | 21,710,020    | 19,724,881         | 176,120    | 19,901,001    | 1,330,450       | 730,628    | 0         | 1,401,562  |
| 1998                 | 7,531,886                                 | 20,887,644    | 23,229,552         | 182,754    | 23,412,306    | 1,513,824       | 309,052    | 0         | 7,568,901  |
| 1999                 | 8,717,679                                 | 22,580,702    | 19,690,120         | 152,644    | 19,842,764    | 3,104,013       | 632,659    | 0         | 5,313,388  |
| 2000                 | 12,484,909                                | 28,278,532    | 23,258,426         | 245,010    | 23,503,436    | 1,876,491       | 740,777    | 0         | 1,382,646  |
| 2001                 | 15,785,706                                | 30,836,893    | 24,056,649         | 618,258    | 24,674,907    | 2,440,376       | 2,549,692  | 0         | 1,843,160  |
| 2002                 | 11,475,179                                | 28,350,187    | 20,789,485         | 472,793    | 21,262,278    | 1,405,443       | 800,065    | 0         | 758,244    |
| 2003                 | 11,512,641                                | 28,641,208    | 20,865,522         | 283,196    | 21,148,718    | 3,734,791       | 673,419    | 0         | 707,540    |
| 2004                 | 14,644,290                                | 33,620,379    | 26,619,990         | 244,908    | 26,864,898    | 1,819,685       | 1,349,413  | 0         | 1,303,773  |
| 2005                 | 13,904,817                                | 29,005,711    | 16,556,912         | 1,498,186  | 18,055,098    | 5,650,484       | 1,487,019  | 0         | 1,529,919  |
| 2006                 | 14,204,922                                | 32,689,201    | 20,116,620         | 656,919    | 20,773,539    | 2,752,334       | 900,927    | 0         | 1,109,718  |
| 2007                 | 14,101,850                                | 33,606,163    | 20,806,857         | 679,568    | 21,486,425    | 2,844,236       | 930,542    | 0         | 1,142,027  |
| 2008                 | 14,750,686                                | 34,990,114    | 21,274,592         | 699,209    | 21,973,801    | 2,839,232       | 938,819    | 0         | 1,013,192  |
| 2009                 | 8,201,150                                 | 27,372,009    | 23,256,250         | 341,348    | 23,597,598    | 1,962,373       | 1,050,623  | 0         | 1,579,321  |
| 2010                 | 8,199,684                                 | 27,367,071    | 23,256,149         | 341,282    | 23,597,431    | 1,961,828       | 1,047,087  | 0         | 1,577,159  |
| 2011                 | 8,226,121                                 | 27,462,618    | 23,304,514         | 342,599    | 23,647,113    | 1,969,724       | 1,056,301  | 0         | 1,586,117  |
| 2012                 | 8,228,118                                 | 27,469,301    | 23,308,938         | 342,681    | 23,651,619    | 1,970,265       | 1,057,664  | 0         | 1,587,131  |
| 2013                 | 8,233,567                                 | 27,487,552    | 23,316,044         | 342,915    | 23,658,959    | 1,971,983       | 1,065,412  | 0         | 1,592,155  |
| 2014                 | 8,236,619                                 | 27,497,860    | 23,311,776         | 343,048    | 23,654,824    | 1,973,346       | 1,076,576  | 0         | 1,598,802  |
| 2015                 | 8,242,826                                 | 27,518,579    | 23,329,727         | 343,305    | 23,673,032    | 1,974,816       | 1,077,135  | 0         | 1,599,872  |
| 2016                 | 8,232,265                                 | 27,483,256    | 23,302,969         | 342,865    | 23,645,834    | 1,972,133       | 1,073,227  | 0         | 1,596,406  |
| 2017                 | 8,236,547                                 | 27,497,578    | 23,313,034         | 343,045    | 23,656,079    | 1,973,267       | 1,075,547  | 0         | 1,598,231  |
| 2018                 | 8,242,934                                 | 27,518,989    | 23,321,377         | 343,313    | 23,664,690    | 1,975,275       | 1,084,522  | 0         | 1,604,048  |
| 2019                 | 8,231,814                                 | 27,481,796    | 23,295,770         | 342,851    | 23,638,621    | 1,972,326       | 1,078,278  | 0         | 1,599,207  |
| 2020                 | 8,239,084                                 | 27,506,050    | 23,318,682         | 343,151    | 23,661,833    | 1,973,950       | 1,077,200  | 0         | 1,599,467  |
| 2021                 | 8,242,925                                 | 27,518,828    | 23,333,830         | 343,308    | 23,677,138    | 1,974,659       | 1,074,112  | 0         | 1,598,194  |
| 2022                 | 8,241,075                                 | 27,512,751    | 23,317,116         | 343,239    | 23,660,355    | 1,974,789       | 1,083,652  | 0         | 1,603,354  |
| 2023                 | 8,232,861                                 | 27,485,218    | 23,305,439         | 342,890    | 23,648,329    | 1,972,243       | 1,072,786  | 0         | 1,596,241  |
| 2024                 | 8,236,206                                 | 27,496,437    | 23,309,134         | 343,032    | 23,652,166    | 1,973,334       | 1,078,099  | 0         | 1,599,637  |
| 2025                 | 8,244,760                                 | 27,524,997    | 23,334,887         | 343,388    | 23,678,275    | 1,975,305       | 1,077,834  | 0         | 1,600,513  |
| 2026                 | 8,229,421                                 | 27,473,783    | 23,289,094         | 342,752    | 23,631,846    | 1,971,751       | 1,077,994  | 0         | 1,598,766  |
| 2027                 | 8,255,986                                 | 27,562,487    | 23,367,789         | 343,854    | 23,711,643    | 1,977,940       | 1,079,352  | 0         | 1,602,155  |
| 2028                 | 8,228,694                                 | 27,471,365    | 23,294,670         | 342,722    | 23,627,392    | 1,971,686       | 1,078,782  | 0         | 1,599,678  |
| 2029                 | 8,239,518                                 | 27,507,472    | 23,321,879         | 343,169    | 23,665,048    | 1,973,964       | 1,075,709  | 0         | 1,598,693  |
| 2030                 | 8,231,489                                 | 27,480,628    | 23,302,201         | 342,832    | 23,645,033    | 1,971,888       | 1,072,108  | 0         | 1,595,696  |
| 2031                 | 8,258,726                                 | 27,571,695    | 23,367,952         | 343,972    | 23,711,924    | 1,978,972       | 1,085,146  | 0         | 1,606,316  |
| 2032                 | 8,224,049                                 | 27,455,868    | 23,270,866         | 342,529    | 23,613,395    | 1,970,607       | 1,079,715  | 0         | 1,599,079  |
| 2033                 | 8,240,433                                 | 27,510,492    | 23,328,840         | 343,203    | 23,672,043    | 1,973,967       | 1,072,173  | 0         | 1,596,812  |
| 2034                 | 8,242,126                                 | 27,516,208    | 23,326,347         | 343,278    | 23,669,625    | 1,974,727       | 1,078,449  | 0         | 1,600,545  |
| 2035                 | 8,225,194                                 | 27,459,690    | 23,274,570         | 342,578    | 23,617,148    | 1,970,870       | 1,079,690  | 0         | 1,599,218  |
| TOTAL                | 473,573,237                               | 1,400,392,062 | 1,179,639,298      | 17,864,867 | 1,197,504,165 | 101,080,596     | 51,680,846 | 0         | 81,631,389 |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 6 of 8

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |            |            |             |            |            |             |                    |             |
|----------------------|---------------------------------|------------|------------|-------------|------------|------------|-------------|--------------------|-------------|
|                      | MOJAVE DIVISION (continued)     |            |            |             |            |            |             | SANTA ANA DIVISION |             |
|                      | Reach 20B                       | Reach 21   | Reach 22A  | Reach 22B   | Reach 23   | Reach 24   | Subtotal    | Reach 25           | Reach 26A   |
|                      | [47]                            | [48]       | [49]       | [50]        | [51]       | [52]       | [53]        | [54]               | [55]        |
| 1961                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1962                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1963                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1964                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1965                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1966                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1967                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1968                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1969                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1970                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1971                 | 0                               | 0          | 0          | 0           | 0          | 0          | 0           | 0                  | 0           |
| 1972                 | 120,271                         | 75,768     | 80,436     | 1,036,831   | 51,520     | 362,153    | 2,030,064   | 26                 | 578         |
| 1973                 | 148,631                         | 60,641     | 66,539     | 1,283,816   | 65,475     | 353,262    | 2,323,148   | 20,541             | 679,328     |
| 1974                 | 88,200                          | 65,007     | 77,667     | 1,477,946   | 96,340     | 334,302    | 2,375,962   | 24,380             | 799,400     |
| 1975                 | 118,898                         | 135,462    | 77,825     | 1,630,554   | 111,141    | 419,450    | 2,794,186   | 29,337             | 885,021     |
| 1976                 | 151,555                         | 106,314    | 131,007    | 1,598,071   | 107,787    | 304,638    | 2,902,124   | 51,356             | 1,103,139   |
| 1977                 | 112,589                         | 98,757     | 86,279     | 1,882,080   | 71,228     | 48,359     | 2,800,647   | 62,584             | 1,412,740   |
| 1978                 | 120,584                         | 109,271    | 71,763     | 2,211,965   | 72,179     | 637,401    | 3,731,410   | 67,186             | 1,159,950   |
| 1979                 | 194,104                         | 203,078    | 121,586    | 2,104,832   | 76,960     | 202,566    | 3,571,387   | 84,462             | 1,235,189   |
| 1980                 | 237,250                         | 156,794    | 117,274    | 2,670,387   | 147,009    | 688,605    | 4,870,700   | 72,651             | 1,532,535   |
| 1981                 | 292,081                         | 181,062    | 119,602    | 3,030,407   | 134,895    | 47,750     | 5,032,502   | 35,662             | 1,575,444   |
| 1982                 | 330,502                         | 186,109    | 125,429    | 3,248,883   | 299,712    | 623,755    | 6,176,507   | 26,852             | 1,822,250   |
| 1983                 | 326,767                         | 219,943    | 140,523    | 3,899,769   | 223,626    | 384,292    | 6,472,986   | 19,017             | 1,663,599   |
| 1984                 | 329,933                         | 266,919    | 146,866    | 4,783,997   | 59,337     | 1,104,149  | 7,935,729   | 11,319             | 2,325,661   |
| 1985                 | 388,327                         | 799,514    | 125,780    | 5,330,501   | 261,135    | 811,346    | 8,941,007   | 17,764             | 2,707,662   |
| 1986                 | 315,566                         | 242,158    | 178,847    | 6,190,812   | 156,053    | 515,945    | 9,001,390   | 31,012             | 2,768,728   |
| 1987                 | 357,971                         | 298,190    | 236,263    | 5,731,239   | 151,796    | 732,607    | 10,146,593  | 19,362             | 2,847,390   |
| 1988                 | 400,005                         | 331,099    | 149,876    | 6,910,472   | 253,833    | 970,052    | 11,403,401  | 36,576             | 3,087,873   |
| 1989                 | 345,614                         | 194,047    | 138,825    | 5,963,386   | 349,544    | 1,242,144  | 9,932,830   | 30,881             | 3,190,809   |
| 1990                 | 202,412                         | 273,748    | 49,174     | 6,905,442   | 436,785    | 1,891,053  | 11,755,736  | 25,518             | 3,330,913   |
| 1991                 | 516,257                         | 478,555    | 231,223    | 7,488,366   | 263,723    | 1,561,051  | 13,662,067  | 32,172             | 3,847,589   |
| 1992                 | 696,623                         | 585,072    | 168,251    | 7,076,997   | 317,042    | 622,116    | 12,038,418  | 55,819             | 4,043,878   |
| 1993                 | 818,675                         | 509,309    | 207,818    | 7,765,751   | 359,632    | 1,708,915  | 15,078,017  | 72,464             | 5,638,325   |
| 1994                 | 957,350                         | 873,215    | 241,679    | 7,691,548   | 1,220,795  | 1,245,936  | 15,839,195  | 105,373            | 5,139,991   |
| 1995                 | 2,411,412                       | 355,198    | 179,930    | 6,994,639   | 842,041    | 746,371    | 15,369,990  | 96,781             | 4,357,648   |
| 1996                 | 1,713,145                       | 790,618    | 136,397    | 8,590,347   | 889,842    | (78,782)   | 15,117,753  | 156,395            | 4,051,744   |
| 1997                 | 2,043,179                       | 640,177    | 189,241    | 8,138,580   | 1,586,227  | 3,355,446  | 19,415,490  | 177,217            | 4,585,198   |
| 1998                 | 508,030                         | 297,621    | 115,100    | 8,888,912   | 1,925,089  | 1,134,837  | 22,261,366  | 142,703            | 4,857,213   |
| 1999                 | 1,583,887                       | 1,344,804  | 158,127    | 9,548,762   | 2,027,154  | 1,340,712  | 25,053,506  | 189,880            | 5,957,072   |
| 2000                 | 1,437,269                       | 974,362    | 165,942    | 9,541,048   | 1,711,994  | 1,520,219  | 19,350,748  | 353,640            | 4,203,640   |
| 2001                 | 1,526,739                       | 1,071,309  | 476,330    | 7,684,613   | 1,893,231  | 25,579     | 19,511,029  | 298,329            | 2,435,173   |
| 2002                 | 583,717                         | 1,157,056  | 281,096    | 11,281,918  | 1,694,767  | 946,719    | 18,909,025  | 509,094            | 3,423,421   |
| 2003                 | 621,363                         | 467,741    | 278,116    | 13,347,106  | 2,096,392  | (411,897)  | 21,514,571  | 368,565            | 3,749,154   |
| 2004                 | 1,025,345                       | 1,043,564  | 404,058    | 10,436,430  | 2,128,942  | 947,017    | 20,458,227  | 427,842            | 5,453,713   |
| 2005                 | 867,477                         | 670,615    | 347,499    | 7,415,415   | 2,415,177  | 2,156,058  | 22,539,663  | 451,980            | 5,594,543   |
| 2006                 | 618,066                         | 609,184    | 240,529    | 13,667,694  | 2,190,675  | 1,792,091  | 23,881,218  | 435,685            | 4,578,654   |
| 2007                 | 637,847                         | 629,324    | 248,333    | 14,686,551  | 2,255,878  | 1,986,231  | 25,360,969  | 450,706            | 4,712,702   |
| 2008                 | 626,462                         | 630,664    | 247,891    | 13,796,170  | 2,187,071  | 1,974,832  | 24,254,333  | 463,733            | 4,828,948   |
| 2009                 | 926,052                         | 696,094    | 383,756    | 8,316,496   | 451,120    | 2,170,794  | 17,536,629  | 68,306             | 6,085,251   |
| 2010                 | 923,812                         | 694,848    | 382,756    | 8,307,583   | 450,520    | 1,775,016  | 17,120,609  | 68,315             | 6,085,115   |
| 2011                 | 930,638                         | 699,270    | 385,699    | 8,345,989   | 451,944    | 2,235,186  | 17,660,868  | 68,546             | 6,104,073   |
| 2012                 | 931,553                         | 699,811    | 386,101    | 8,350,443   | 452,211    | 1,908,890  | 17,344,069  | 68,556             | 6,105,268   |
| 2013                 | 936,542                         | 702,638    | 388,309    | 8,371,551   | 453,573    | 1,006,099  | 16,488,262  | 68,559             | 6,107,354   |
| 2014                 | 943,569                         | 706,510    | 391,443    | 8,398,521   | 455,389    | 2,632,579  | 18,176,735  | 68,519             | 6,106,589   |
| 2015                 | 944,125                         | 706,963    | 391,670    | 8,404,267   | 455,681    | 1,000,463  | 16,554,992  | 68,573             | 6,111,280   |
| 2016                 | 941,349                         | 705,210    | 390,467    | 8,387,862   | 454,696    | 2,869,710  | 18,391,060  | 68,501             | 6,104,183   |
| 2017                 | 942,933                         | 706,170    | 391,159    | 8,396,115   | 455,195    | 1,675,966  | 17,214,583  | 68,527             | 6,106,876   |
| 2018                 | 948,712                         | 709,447    | 393,719    | 8,420,663   | 456,791    | 1,975,079  | 17,568,256  | 68,530             | 6,109,328   |
| 2019                 | 944,469                         | 706,889    | 391,865    | 8,398,670   | 455,425    | 2,854,227  | 18,401,356  | 68,469             | 6,102,459   |
| 2020                 | 944,039                         | 706,829    | 391,645    | 8,401,609   | 455,527    | 1,745,801  | 17,296,067  | 68,539             | 6,108,398   |
| 2021                 | 942,256                         | 705,956    | 390,834    | 8,397,575   | 455,194    | 775,758    | 16,314,538  | 68,593             | 6,112,249   |
| 2022                 | 948,116                         | 709,083    | 393,458    | 8,417,307   | 456,556    | 1,825,161  | 17,411,476  | 68,519             | 6,108,184   |
| 2023                 | 941,099                         | 705,093    | 390,353    | 8,387,266   | 454,624    | 2,819,195  | 18,338,900  | 68,510             | 6,104,808   |
| 2024                 | 944,506                         | 707,014    | 391,864    | 8,401,458   | 455,545    | 1,670,166  | 17,221,623  | 68,509             | 6,105,934   |
| 2025                 | 944,627                         | 707,279    | 391,885    | 8,407,161   | 455,826    | 1,857,600  | 17,418,030  | 68,588             | 6,112,639   |
| 2026                 | 944,215                         | 706,698    | 391,762    | 8,396,251   | 455,276    | 2,922,216  | 18,464,929  | 68,449             | 6,100,706   |
| 2027                 | 945,323                         | 707,929    | 392,159    | 8,416,516   | 456,304    | 1,505,034  | 17,081,712  | 68,686             | 6,121,228   |
| 2028                 | 945,300                         | 707,263    | 392,247    | 8,399,700   | 455,536    | 808,664    | 16,359,856  | 68,431             | 6,099,614   |
| 2029                 | 943,136                         | 706,353    | 391,237    | 8,398,604   | 455,302    | 2,758,754  | 18,301,752  | 68,553             | 6,109,182   |
| 2030                 | 940,632                         | 704,809    | 390,148    | 8,384,751   | 454,465    | 2,869,648  | 18,384,145  | 68,502             | 6,103,943   |
| 2031                 | 949,631                         | 710,321    | 394,072    | 8,433,538   | 457,424    | 225,891    | 15,841,311  | 68,671             | 6,121,476   |
| 2032                 | 945,101                         | 707,047    | 392,174    | 8,396,167   | 455,363    | 2,733,783  | 18,279,036  | 68,388             | 6,096,014   |
| 2033                 | 940,970                         | 705,204    | 390,267    | 8,391,431   | 454,792    | 1,439,736  | 16,965,352  | 68,584             | 6,110,886   |
| 2034                 | 944,922                         | 707,382    | 392,030    | 8,406,578   | 455,816    | 1,234,473  | 16,794,922  | 68,560             | 6,110,430   |
| 2035                 | 945,129                         | 707,092    | 392,182    | 8,396,890   | 455,368    | 4,221,893  | 19,768,332  | 68,400             | 6,096,973   |
| TOTAL                | 49,196,859                      | 36,177,471 | 17,104,382 | 468,463,199 | 43,413,490 | 87,765,062 | 936,513,294 | 7,304,747          | 280,437,255 |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 7 of 8

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |            |             |             |             |            |             |             |            |  |
|----------------------|---------------------------------|------------|-------------|-------------|-------------|------------|-------------|-------------|------------|--|
|                      | SANTA ANA DIVISION (continued)  |            |             |             | WEST BRANCH |            |             |             |            |  |
|                      | Reach 28G                       | Reach 28H  | Reach 28J   | Subtotal    | Reach 29A   | Reach 29F  | Reach 29G   | Reach 29H   | Reach 29J  |  |
|                      | [56]                            | [57]       | [58]        | [59]        | [60]        | [61]       | [62]        | [63]        | [64]       |  |
| 1961                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1962                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1963                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1964                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1965                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1966                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1967                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1968                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1969                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1970                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1971                 | 0                               | 0          | 0           | 0           | 0           | 0          | 0           | 0           | 0          |  |
| 1972                 | 109                             | 30         | 0           | 743         | 719,255     | 159,249    | 199,145     | 234,196     | 88,198     |  |
| 1973                 | 136,352                         | 79         | 0           | 836,300     | 779,949     | 339,363    | 122,664     | 264,850     | 119,743    |  |
| 1974                 | 155,262                         | 34,693     | 854,637     | 1,868,372   | 883,312     | 158,366    | 112,458     | 350,160     | (4,525)    |  |
| 1975                 | 110,729                         | 69,082     | 723,814     | 1,817,983   | 1,049,990   | 176,676    | 194,724     | 801,457     | 75,870     |  |
| 1976                 | 138,575                         | 100,400    | 635,853     | 2,029,323   | 1,220,429   | 215,588    | 202,591     | 624,614     | 98,268     |  |
| 1977                 | 127,543                         | 92,647     | 825,880     | 2,521,394   | 1,268,813   | 116,939    | 218,129     | 684,679     | 184        |  |
| 1978                 | 166,919                         | 68,363     | 835,082     | 2,297,500   | 1,174,708   | 342,479    | 267,308     | 415,641     | 17,764     |  |
| 1979                 | 142,586                         | 92,812     | 265,525     | 1,820,574   | 1,366,942   | 285,575    | 284,188     | 972,584     | 29,850     |  |
| 1980                 | 158,340                         | 129,897    | 1,120,131   | 3,013,554   | 1,698,215   | 224,472    | 455,619     | 874,259     | 288,303    |  |
| 1981                 | 160,053                         | 111,722    | 333,550     | 2,216,431   | 1,783,405   | 123,264    | 615,047     | 2,305,110   | 8,794      |  |
| 1982                 | 205,350                         | 135,463    | 1,518,759   | 3,708,674   | 1,919,979   | 190,500    | 702,265     | 2,208,264   | 414,230    |  |
| 1983                 | 244,720                         | 124,651    | 412,806     | 2,464,793   | 2,739,814   | 149,333    | 888,475     | 745,939     | 579,882    |  |
| 1984                 | 240,496                         | 190,924    | 769,068     | 3,537,468   | 3,463,038   | 81,260     | 2,358,495   | 537,207     | 719,282    |  |
| 1985                 | 451,600                         | 182,242    | 871,492     | 4,230,760   | 3,866,946   | 295,836    | 3,047,591   | 975,729     | 614,735    |  |
| 1986                 | 439,048                         | 256,526    | 982,332     | 4,477,646   | 3,791,427   | 457,604    | 2,893,171   | 1,480,015   | 1,032,216  |  |
| 1987                 | 278,094                         | 218,717    | 1,118,529   | 4,482,092   | 3,423,494   | 213,106    | 2,933,342   | 944,604     | 459,398    |  |
| 1988                 | 271,868                         | 200,811    | 1,176,659   | 4,773,787   | 3,447,403   | 255,113    | 3,017,463   | 883,714     | 446,468    |  |
| 1989                 | 230,953                         | 281,861    | 1,130,035   | 4,864,539   | 4,025,641   | 405,583    | 2,738,143   | 1,398,165   | 865,738    |  |
| 1990                 | 437,812                         | 308,144    | 1,538,449   | 5,640,836   | 4,088,481   | 383,655    | 3,232,445   | 3,153,869   | 777,713    |  |
| 1991                 | 843,388                         | 632,912    | 1,630,321   | 6,986,382   | 3,862,056   | 304,143    | 3,550,063   | 639,527     | 763,037    |  |
| 1992                 | 281,864                         | 5,636,464  | 1,102,519   | 11,120,544  | 4,286,050   | 327,802    | 3,892,480   | 1,014,551   | 872,953    |  |
| 1993                 | 382,195                         | 570,563    | 994,721     | 7,658,268   | 3,969,075   | 343,304    | 4,515,385   | 1,670,952   | 852,208    |  |
| 1994                 | 617,136                         | 415,603    | 1,022,412   | 7,300,515   | 3,649,861   | 293,376    | 3,359,381   | 1,879,417   | 872,624    |  |
| 1995                 | 1,308,828                       | 704,154    | 894,338     | 7,361,749   | 4,137,046   | 883,315    | 4,750,275   | 1,588,080   | 754,904    |  |
| 1996                 | 1,001,063                       | 1,041,697  | 1,316,493   | 7,567,392   | 4,511,858   | 966,044    | 3,593,671   | 4,208,195   | 877,111    |  |
| 1997                 | 493,841                         | 949,188    | 953,590     | 7,159,034   | 4,543,506   | 1,030,809  | 2,429,066   | 3,755,901   | 1,597,361  |  |
| 1998                 | 379,997                         | 991,426    | (67,444)    | 6,303,895   | 4,872,244   | 464,376    | 3,474,463   | 2,398,630   | 1,996,114  |  |
| 1999                 | 493,493                         | 1,964,137  | 845,343     | 9,449,925   | 4,768,390   | 4,338,174  | 4,924,176   | 1,391,028   | 1,000,370  |  |
| 2000                 | 844,558                         | 1,004,569  | 1,130,423   | 7,536,830   | 5,460,691   | 782,887    | 4,277,874   | 2,361,194   | 171,261    |  |
| 2001                 | 1,668,195                       | 811,163    | 5,688,912   | 10,901,772  | 5,908,798   | 1,533,322  | 5,137,414   | 4,393,983   | 240,853    |  |
| 2002                 | 1,251,118                       | 424,389    | 2,197,952   | 7,805,974   | 5,341,880   | 1,480,328  | 4,082,857   | 4,442,291   | (51,885)   |  |
| 2003                 | 535,209                         | 376,265    | 1,279,384   | 6,308,577   | 4,461,737   | 1,289,703  | 3,728,632   | 3,336,304   | (627,530)  |  |
| 2004                 | 1,206,016                       | 440,811    | 3,465,088   | 10,993,470  | 8,918,901   | 1,317,754  | 3,491,206   | 5,059,781   | (615,239)  |  |
| 2005                 | 1,439,765                       | 684,382    | (1,750,113) | 6,420,557   | 5,794,901   | 2,491,755  | 9,043,269   | (472,624)   | 2,762,038  |  |
| 2006                 | 1,098,598                       | 517,408    | 2,723,264   | 9,353,609   | 6,248,004   | 681,464    | 4,474,550   | 3,919,482   | (84,714)   |  |
| 2007                 | 1,136,475                       | 535,247    | 2,390,346   | 9,225,476   | 6,445,534   | 703,745    | 4,623,674   | 4,053,603   | (93,667)   |  |
| 2008                 | 1,169,322                       | 550,717    | 2,525,195   | 9,537,915   | 6,705,848   | 724,003    | 4,753,040   | 4,172,827   | (101,430)  |  |
| 2009                 | 634,233                         | 442,191    | 2,019,362   | 9,249,343   | 6,147,456   | 657,334    | 2,999,231   | 3,633,656   | 725,264    |  |
| 2010                 | 634,310                         | 442,245    | 2,338,564   | 9,568,549   | 6,147,397   | 653,418    | 2,998,377   | 3,620,567   | 725,352    |  |
| 2011                 | 636,345                         | 443,739    | 1,924,294   | 9,176,997   | 6,165,794   | 661,813    | 3,009,000   | 3,654,696   | 726,900    |  |
| 2012                 | 636,442                         | 443,805    | 2,106,287   | 9,360,358   | 6,166,978   | 663,140    | 3,009,826   | 3,659,334   | 727,012    |  |
| 2013                 | 636,473                         | 443,827    | 2,370,896   | 9,627,109   | 6,168,928   | 671,448    | 3,012,470   | 3,687,862   | 727,048    |  |
| 2014                 | 636,104                         | 443,569    | 1,985,769   | 9,240,550   | 6,167,911   | 683,884    | 3,014,603   | 3,729,713   | 726,625    |  |
| 2015                 | 636,603                         | 443,917    | 2,237,728   | 9,498,101   | 6,172,657   | 684,032    | 3,016,840   | 3,731,264   | 727,193    |  |
| 2016                 | 635,933                         | 443,451    | 1,919,345   | 9,171,413   | 6,165,550   | 680,234    | 3,012,726   | 3,716,661   | 726,429    |  |
| 2017                 | 636,170                         | 443,614    | 2,528,148   | 9,783,335   | 6,168,236   | 682,533    | 3,014,453   | 3,725,033   | 726,699    |  |
| 2018                 | 636,205                         | 443,640    | 2,047,929   | 9,305,632   | 6,170,525   | 692,263    | 3,017,555   | 3,758,325   | 726,741    |  |
| 2019                 | 635,622                         | 443,233    | 2,549,057   | 9,798,840   | 6,163,704   | 685,834    | 3,013,021   | 3,734,828   | 726,074    |  |
| 2020                 | 636,294                         | 443,701    | 1,797,397   | 9,054,329   | 6,169,746   | 684,223    | 3,015,494   | 3,730,397   | 726,841    |  |
| 2021                 | 636,790                         | 444,047    | 2,110,597   | 9,372,276   | 6,173,717   | 680,499    | 3,016,564   | 3,718,810   | 727,409    |  |
| 2022                 | 636,110                         | 443,573    | 2,931,790   | 10,188,176  | 6,169,394   | 691,181    | 3,016,786   | 3,754,039   | 726,632    |  |
| 2023                 | 636,018                         | 443,509    | 2,052,381   | 9,305,226   | 6,166,203   | 679,589    | 3,012,873   | 3,714,193   | 726,526    |  |
| 2024                 | 636,004                         | 443,501    | 2,371,214   | 9,625,162   | 6,167,233   | 685,315    | 3,014,549   | 3,733,777   | 726,512    |  |
| 2025                 | 636,737                         | 444,010    | 1,725,337   | 8,987,311   | 6,174,031   | 684,551    | 3,017,557   | 3,732,354   | 727,348    |  |
| 2026                 | 635,442                         | 443,108    | 2,852,622   | 10,100,327  | 6,161,939   | 685,557    | 3,012,131   | 3,733,285   | 725,868    |  |
| 2027                 | 637,657                         | 444,652    | 1,456,605   | 8,728,828   | 6,182,724   | 684,375    | 3,021,589   | 3,733,648   | 728,400    |  |
| 2028                 | 635,276                         | 442,991    | 2,290,598   | 9,536,910   | 6,160,787   | 687,755    | 3,012,056   | 3,741,004   | 725,679    |  |
| 2029                 | 636,418                         | 443,788    | 2,163,631   | 9,421,572   | 6,170,572   | 682,392    | 3,015,494   | 3,724,111   | 726,985    |  |
| 2030                 | 635,942                         | 443,456    | 2,228,881   | 9,480,724   | 6,165,344   | 678,871    | 3,012,320   | 3,711,540   | 726,440    |  |
| 2031                 | 637,514                         | 444,552    | 2,973,431   | 10,245,644  | 6,182,830   | 691,773    | 3,023,185   | 3,758,886   | 728,234    |  |
| 2032                 | 634,886                         | 442,720    | 1,636,352   | 8,878,360   | 6,157,143   | 688,001    | 3,010,408   | 3,741,030   | 725,234    |  |
| 2033                 | 636,694                         | 443,980    | 2,407,724   | 9,667,868   | 6,172,375   | 678,343    | 3,015,485   | 3,710,942   | 727,299    |  |
| 2034                 | 636,483                         | 443,834    | 2,181,758   | 9,441,065   | 6,171,781   | 685,364    | 3,016,683   | 3,735,014   | 727,060    |  |
| 2035                 | 634,997                         | 442,797    | 2,893,328   | 10,136,495  | 6,158,117   | 687,633    | 3,010,783   | 3,739,342   | 725,359    |  |
| TOTAL                | 37,421,172                      | 32,825,609 | 103,556,370 | 461,545,153 | 303,106,693 | 42,901,620 | 183,946,798 | 170,032,489 | 37,437,643 |  |

**TABLE B-11. Minimum OMP&R Costs of Each Aqueduct Reach to be Reimbursed  
Through Minimum OMP&R Component of Transportation Charge**

(in dollars)

Sheet 8 of 8

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |             |                        |            |           |           |           |             |               | GRAND<br>TOTAL |
|------------------|---------------------------------|-------------|------------------------|------------|-----------|-----------|-----------|-------------|---------------|----------------|
|                  | WEST BRANCH (cont.)             |             | COASTAL BRANCH         |            |           |           |           |             | Total         |                |
|                  | Reach 30                        | Subtotal    | Reach 31A <sup>a</sup> | Reach 33A  | Reach 33B | Reach 34  | Reach 35  | Subtotal    |               |                |
|                  | [65]                            | [66]        | [67]                   | [68]       | [69]      | [70]      | [71]      | [72]        | [73]          | [74]           |
| 1961             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 0              |
| 1962             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 42,918         |
| 1963             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 168,358        |
| 1964             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 184,729        |
| 1965             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 378,874        |
| 1966             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 408,397        |
| 1967             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 0             | 634,505        |
| 1968             | 0                               | 0           | 0                      | 0          | 0         | 0         | 0         | 0           | 2,160,548     | 2,745,160      |
| 1969             | 0                               | 0           | 509,728                | 0          | 0         | 0         | 0         | 509,728     | 3,324,718     | 4,074,939      |
| 1970             | 0                               | 0           | 609,988                | 0          | 0         | 0         | 0         | 609,988     | 3,983,062     | 4,676,282      |
| 1971             | 0                               | 0           | 699,052                | 0          | 0         | 0         | 0         | 699,052     | 5,614,013     | 6,185,714      |
| 1972             | 420,789                         | 1,820,832   | 697,576                | 0          | 0         | 0         | 0         | 697,576     | 12,353,356    | 12,998,869     |
| 1973             | 621,431                         | 2,248,000   | 641,626                | 0          | 0         | 0         | 0         | 641,626     | 14,590,688    | 15,194,233     |
| 1974             | 723,949                         | 2,223,720   | 669,279                | 0          | 0         | 0         | 0         | 669,279     | 16,598,762    | 17,372,561     |
| 1975             | 841,991                         | 3,140,708   | 806,429                | 0          | 0         | 0         | 0         | 806,429     | 19,569,999    | 20,517,423     |
| 1976             | (650,944)                       | 1,710,546   | 840,927                | 0          | 0         | 0         | 0         | 840,927     | 19,002,859    | 20,027,213     |
| 1977             | 634,581                         | 2,923,325   | 872,169                | 0          | 0         | 0         | 0         | 872,169     | 23,267,885    | 24,213,489     |
| 1978             | 3,088,954                       | 5,306,854   | 934,119                | 0          | 0         | 0         | 0         | 934,119     | 24,818,739    | 26,012,786     |
| 1979             | 958,068                         | 3,897,207   | 871,688                | 0          | 0         | 0         | 0         | 871,688     | 23,421,881    | 24,675,598     |
| 1980             | 222,549                         | 3,763,417   | 1,047,396              | 4,790      | 0         | 30        | 75        | 1,052,291   | 30,105,348    | 32,038,398     |
| 1981             | 1,093,897                       | 5,929,517   | 1,037,469              | 4,790      | 0         | 30        | 75        | 1,042,364   | 33,884,524    | 35,516,366     |
| 1982             | 978,624                         | 6,413,862   | 1,015,555              | 4,790      | 0         | 30        | 75        | 1,020,450   | 41,611,655    | 42,918,000     |
| 1983             | 3,698,681                       | 8,802,124   | 1,146,269              | 4,957      | 0         | 30        | 77        | 1,151,333   | 54,543,263    | 56,802,781     |
| 1984             | 755,136                         | 7,914,418   | 1,427,192              | 5,051      | 0         | 31        | 78        | 1,432,352   | 63,947,633    | 67,105,188     |
| 1985             | 1,753,355                       | 10,554,192  | 1,849,827              | 5,051      | 0         | 31        | 78        | 1,854,987   | 69,700,009    | 73,272,898     |
| 1986             | 1,338,657                       | 10,993,090  | 1,714,723              | 5,051      | 0         | 31        | 78        | 1,719,883   | 73,437,761    | 76,707,917     |
| 1987             | 1,406,519                       | 9,380,463   | 1,689,141              | 4,324      | 0         | 26        | 67        | 1,693,558   | 71,443,424    | 75,217,576     |
| 1988             | 1,452,589                       | 9,502,750   | 1,964,428              | 4,509      | 0         | 28        | 70        | 1,969,035   | 72,349,117    | 76,060,618     |
| 1989             | 1,505,029                       | 10,938,299  | 1,768,942              | 4,509      | 0         | 28        | 70        | 1,773,549   | 73,894,076    | 78,662,348     |
| 1990             | 847,500                         | 12,483,663  | 2,274,772              | 0          | 0         | 0         | 0         | 2,274,772   | 86,130,115    | 91,361,385     |
| 1991             | 1,191,090                       | 10,309,916  | 2,187,841              | 0          | 0         | 0         | 0         | 2,187,841   | 86,877,284    | 90,982,870     |
| 1992             | 2,259,032                       | 12,652,868  | 2,465,364              | 0          | 0         | 0         | 0         | 2,465,364   | 94,167,321    | 99,235,524     |
| 1993             | 1,157,876                       | 12,508,800  | 2,811,441              | 0          | 0         | 0         | 0         | 2,811,441   | 100,019,568   | 107,299,130    |
| 1994             | 1,674,576                       | 11,729,235  | 3,894,639              | 0          | 0         | 0         | 0         | 3,894,639   | 92,336,811    | 99,944,106     |
| 1995             | (421,879)                       | 11,691,741  | 3,481,049              | 0          | 0         | 0         | 0         | 3,481,049   | 98,887,435    | 105,659,504    |
| 1996             | 1,574,098                       | 15,730,977  | 5,144,684              | 0          | 0         | 0         | 0         | 5,144,684   | 105,119,193   | 112,018,784    |
| 1997             | 1,521,491                       | 14,878,134  | 2,523,741              | (33)       | 0         | 0         | 0         | 2,523,708   | 107,647,058   | 113,385,326    |
| 1998             | 1,291,185                       | 14,497,012  | 4,303,206              | 1,878,551  | 1,386     | 160,400   | 88,026    | 6,431,569   | 120,663,477   | 127,330,678    |
| 1999             | 2,059,968                       | 18,482,106  | 4,186,890              | 1,950,758  | 16,646    | 184,325   | 87,373    | 6,425,992   | 124,753,820   | 133,895,183    |
| 2000             | 1,529,054                       | 14,582,961  | 2,887,384              | 2,533,121  | 20,756    | 253,532   | 109,322   | 5,804,115   | 122,249,124   | 130,905,236    |
| 2001             | (942,708)                       | 16,271,662  | 3,113,399              | 2,241,933  | 14,426    | 153,879   | 58,875    | 5,582,512   | 135,962,968   | 143,315,101    |
| 2002             | 3,419,111                       | 18,714,582  | 3,187,937              | 2,686,101  | 49,670    | 189,442   | 81,720    | 6,194,870   | 125,082,782   | 136,721,587    |
| 2003             | 968,853                         | 13,157,699  | 3,338,003              | 2,777,886  | 41,188    | 200,985   | 85,013    | 6,443,075   | 124,965,982   | 133,887,739    |
| 2004             | 1,515,533                       | 19,687,936  | 3,542,320              | 2,668,727  | 70,179    | 240,426   | 109,830   | 6,631,482   | 143,841,151   | 153,942,418    |
| 2005             | (1,119,961)                     | 18,499,378  | 3,871,812              | 2,984,019  | 120,182   | 292,253   | 137,816   | 7,406,082   | 126,047,731   | 134,166,265    |
| 2006             | (3,426,344)                     | 11,812,442  | 3,712,424              | 2,953,567  | 15,191    | 272,839   | 132,183   | 7,086,204   | 132,566,445   | 141,834,009    |
| 2007             | 2,605,969                       | 18,338,858  | 3,837,608              | 3,047,983  | 15,714    | 282,227   | 136,691   | 7,320,223   | 143,987,941   | 153,919,911    |
| 2008             | 2,702,596                       | 18,956,884  | 3,961,204              | 3,159,814  | 16,169    | 290,383   | 140,638   | 7,568,208   | 147,770,822   | 158,198,616    |
| 2009             | 3,018,521                       | 17,181,462  | 4,006,112              | 1,941,533  | 0         | 1,680     | 4,465     | 5,953,790   | 122,587,842   | 131,426,192    |
| 2010             | 2,926,467                       | 17,071,578  | 4,005,748              | 1,941,422  | 0         | 1,619     | 4,303     | 5,953,092   | 122,369,704   | 131,207,577    |
| 2011             | 3,094,243                       | 17,312,446  | 4,020,078              | 1,946,835  | 0         | 1,721     | 4,576     | 5,973,210   | 123,018,775   | 131,889,787    |
| 2012             | 2,922,167                       | 17,148,457  | 4,020,945              | 1,947,235  | 0         | 1,740     | 4,629     | 5,974,549   | 122,738,855   | 131,611,688    |
| 2013             | 3,330,006                       | 17,597,762  | 4,022,885              | 1,948,040  | 0         | 1,869     | 4,969     | 5,977,763   | 122,644,558   | 131,521,003    |
| 2014             | 3,015,532                       | 17,338,268  | 4,023,255              | 1,948,014  | 0         | 2,067     | 5,490     | 5,978,826   | 123,708,710   | 132,584,951    |
| 2015             | 2,875,790                       | 17,207,776  | 4,026,318              | 1,949,503  | 0         | 2,062     | 5,478     | 5,983,361   | 122,270,328   | 131,153,356    |
| 2016             | 3,433,233                       | 17,734,833  | 4,021,431              | 1,947,186  | 0         | 2,010     | 5,345     | 5,975,972   | 124,212,608   | 133,085,110    |
| 2017             | 3,255,898                       | 17,572,852  | 4,023,343              | 1,948,080  | 0         | 2,042     | 5,429     | 5,978,894   | 123,523,856   | 132,400,411    |
| 2018             | 3,165,776                       | 17,531,185  | 4,025,617              | 1,949,026  | 0         | 2,193     | 5,829     | 5,982,665   | 123,411,504   | 132,292,303    |
| 2019             | 3,704,072                       | 18,027,533  | 4,020,694              | 1,946,734  | 0         | 2,102     | 5,583     | 5,975,113   | 125,136,217   | 134,006,624    |
| 2020             | 3,508,436                       | 17,835,137  | 4,024,449              | 1,948,592  | 0         | 2,067     | 5,493     | 5,980,601   | 123,160,837   | 132,039,716    |
| 2021             | 2,722,842                       | 17,039,841  | 4,026,696              | 1,949,749  | 0         | 2,003     | 5,323     | 5,983,771   | 121,738,626   | 130,622,801    |
| 2022             | 2,744,304                       | 17,102,336  | 4,024,795              | 1,948,644  | 0         | 2,177     | 5,787     | 5,981,403   | 123,691,991   | 132,571,060    |
| 2023             | 3,102,909                       | 17,402,293  | 4,021,786              | 1,947,373  | 0         | 2,000     | 5,312     | 5,976,392   | 123,967,392   | 132,840,750    |
| 2024             | 3,877,069                       | 18,204,455  | 4,022,920              | 1,947,827  | 0         | 2,088     | 5,545     | 5,978,380   | 123,999,827   | 132,875,216    |
| 2025             | 2,117,073                       | 16,452,914  | 4,027,233              | 1,949,942  | 0         | 2,067     | 5,493     | 5,984,735   | 121,884,955   | 130,769,981    |
| 2026             | 3,905,316                       | 18,224,096  | 4,019,533              | 1,946,174  | 0         | 2,099     | 5,577     | 5,973,383   | 125,676,189   | 134,544,046    |
| 2027             | 37,231                          | 14,387,967  | 4,032,815              | 1,952,665  | 0         | 2,051     | 5,454     | 5,992,985   | 119,327,311   | 128,224,740    |
| 2028             | 7,076,969                       | 21,404,250  | 4,018,969              | 1,945,866  | 0         | 2,133     | 5,671     | 5,972,639   | 126,180,163   | 135,046,593    |
| 2029             | 1,775,892                       | 16,095,446  | 4,024,832              | 1,948,809  | 0         | 2,036     | 5,417     | 5,981,094   | 122,798,885   | 131,678,762    |
| 2030             | 3,122,256                       | 17,416,771  | 4,021,173              | 1,947,085  | 0         | 1,989     | 5,287     | 5,975,534   | 124,190,495   | 133,062,546    |
| 2031             | 95,358                          | 14,480,266  | 4,033,494              | 1,952,866  | 0         | 2,170     | 5,761     | 5,994,291   | 119,717,317   | 128,615,643    |
| 2032             | 7,059,493                       | 21,381,309  | 4,016,646              | 1,944,728  | 0         | 2,143     | 5,696     | 5,969,213   | 127,375,560   | 136,236,809    |
| 2033             | 2,083,681                       | 16,388,125  | 4,025,658              | 1,949,280  | 0         | 1,969     | 5,236     | 5,982,143   | 122,011,717   | 130,893,761    |
| 2034             | 3,035,981                       | 17,371,883  | 4,025,852              | 1,949,255  | 0         | 2,083     | 5,534     | 5,982,724   | 122,610,238   | 131,492,131    |
| 2035             | 3,962,643                       | 18,283,877  | 4,017,243              | 1,945,027  | 0         | 2,137     | 5,677     | 5,970,084   | 127,036,141   | 135,898,753    |
| TOTAL            | 126,220,053                     | 863,645,296 | 196,139,761            | 81,517,739 | 381,507   | 2,575,303 | 1,312,589 | 281,926,899 | 6,301,594,485 | 6,732,103,475  |

a) Includes certain costs to be assigned directly to Kern County Water Agency. Refer to Appendix B text discussion of Table B-16A under "Project Water Charges."



**TABLE B-12. Variable OMP&R Costs to be Reimbursed through  
Variable OMP&R Component of Transportation Charge <sup>a</sup>**

Sheet 1 of 3

| Calendar<br>Year | NORTH BAY AQUEDUCT                   |                                          |                                                     |            | SOUTH BAY<br>AQUEDUCT                                      | CALIFORNIA AQUEDUCT       |                                |                                    |                                      |
|------------------|--------------------------------------|------------------------------------------|-----------------------------------------------------|------------|------------------------------------------------------------|---------------------------|--------------------------------|------------------------------------|--------------------------------------|
|                  | Reach 1                              | Reach 3A                                 | Reach 3B                                            | Total      | Reach 1                                                    | Reach 1                   | Reach 4                        | Reach 14A                          | Reach 15A                            |
|                  | Barker<br>Slough<br>Pumping<br>Plant | Cordelia<br>Pumping<br>Plant<br>(Solano) | Cordelia<br>Pumping<br>Plant<br>(Napa) <sup>b</sup> |            | South Bay &<br>Del Valle<br>Pumping<br>Plants <sup>c</sup> | Banks<br>Pumping<br>Plant | Dos Amigos<br>Pumping<br>Plant | Buena<br>Vista<br>Pumping<br>Plant | Wheeler<br>Ridge<br>Pumping<br>Plant |
|                  | [1]                                  | [2]                                      | [3]                                                 | [4]        | [5]                                                        | [6]                       | [7]                            | [8]                                | [9]                                  |
| 1962             | 0                                    | 0                                        | 0                                                   | 0          | 36,970                                                     | 0                         | 0                              | 0                                  | 0                                    |
| 1963             | 0                                    | 0                                        | 0                                                   | 0          | 57,711                                                     | 0                         | 0                              | 0                                  | 0                                    |
| 1964             | 0                                    | 0                                        | 0                                                   | 0          | 74,134                                                     | 0                         | 0                              | 0                                  | 0                                    |
| 1965             | 0                                    | 0                                        | 0                                                   | 0          | 142,609                                                    | 0                         | 0                              | 0                                  | 0                                    |
| 1966             | 0                                    | 0                                        | 0                                                   | 0          | 192,605                                                    | 0                         | 0                              | 0                                  | 0                                    |
| 1967             | 0                                    | 0                                        | 0                                                   | 0          | 223,117                                                    | 13,881                    | 0                              | 0                                  | 0                                    |
| 1968             | 0                                    | 0                                        | 6,989                                               | 6,989      | 336,671                                                    | 452,630                   | 202,947                        | 0                                  | 0                                    |
| 1969             | 0                                    | 0                                        | 8,551                                               | 8,551      | 257,579                                                    | 293,741                   | 135,425                        | 0                                  | 0                                    |
| 1970             | 0                                    | 0                                        | 13,598                                              | 13,598     | 396,358                                                    | 346,215                   | 211,197                        | 1                                  | 0                                    |
| 1971             | 0                                    | 0                                        | 10,609                                              | 10,609     | 381,662                                                    | 574,015                   | 225,188                        | 138,001                            | 17,664                               |
| 1972             | 0                                    | 0                                        | 14,434                                              | 14,434     | 598,702                                                    | 933,292                   | 502,196                        | 241,714                            | 97,004                               |
| 1973             | 0                                    | 0                                        | 14,449                                              | 14,449     | 493,490                                                    | 688,030                   | 381,232                        | 306,268                            | 278,923                              |
| 1974             | 0                                    | 0                                        | 17,473                                              | 17,473     | 565,575                                                    | 783,562                   | 447,772                        | 358,739                            | 367,266                              |
| 1975             | 0                                    | 0                                        | 14,779                                              | 14,779     | 349,758                                                    | 1,341,019                 | 518,816                        | 550,860                            | 595,252                              |
| 1976             | 0                                    | 0                                        | 20,856                                              | 20,856     | 571,361                                                    | 1,638,453                 | 641,115                        | 755,747                            | 756,175                              |
| 1977             | 0                                    | 0                                        | 22,635                                              | 22,635     | 512,996                                                    | 1,013,307                 | 284,828                        | 298,300                            | 337,889                              |
| 1978             | 0                                    | 0                                        | 21,692                                              | 21,692     | 586,355                                                    | 2,339,502                 | 607,042                        | 732,036                            | 658,404                              |
| 1979             | 0                                    | 0                                        | 16,237                                              | 16,237     | 605,136                                                    | 3,554,256                 | 1,008,564                      | 818,816                            | 791,488                              |
| 1980             | 0                                    | 0                                        | 19,945                                              | 19,945     | 523,369                                                    | 2,083,336                 | 1,129,152                      | 1,051,629                          | 1,047,495                            |
| 1981             | 0                                    | 0                                        | 23,842                                              | 23,842     | 567,692                                                    | 3,952,931                 | 1,939,189                      | 1,336,867                          | 1,319,739                            |
| 1982             | 0                                    | 0                                        | 12,157                                              | 12,157     | 605,780                                                    | 3,082,031                 | 1,363,705                      | 1,200,226                          | 1,213,660                            |
| 1983             | 0                                    | 0                                        | 2,342                                               | 2,342      | 82,222                                                     | 879,916                   | 343,597                        | 341,584                            | 304,715                              |
| 1984             | 0                                    | 0                                        | 4,822                                               | 4,822      | 271,543                                                    | 1,695,568                 | 885,941                        | 678,307                            | 602,408                              |
| 1985             | 0                                    | 0                                        | 10,188                                              | 10,188     | 451,020                                                    | 3,171,920                 | 1,613,745                      | 1,397,490                          | 1,397,098                            |
| 1986             | 0                                    | 0                                        | 15,501                                              | 15,501     | 807,984                                                    | 6,601,752                 | 2,627,407                      | 2,405,224                          | 2,432,322                            |
| 1987             | 0                                    | 0                                        | 27,223                                              | 27,223     | 886,956                                                    | 5,753,132                 | 2,523,544                      | 2,240,552                          | 2,223,371                            |
| 1988             | 17,813                               | 0                                        | 24,020                                              | 41,833     | 909,300                                                    | 6,280,898                 | 2,611,297                      | 2,562,330                          | 2,560,462                            |
| 1989             | 29,819                               | 43,846                                   | 26,519                                              | 100,184    | 1,161,160                                                  | 9,748,180                 | 3,910,492                      | 3,964,188                          | 3,974,290                            |
| 1990             | 52,210                               | 67,109                                   | 40,775                                              | 160,094    | 1,834,626                                                  | 10,467,177                | 4,501,309                      | 5,785,069                          | 6,019,952                            |
| 1991             | 10,429                               | 10,118                                   | 5,252                                               | 25,799     | 378,966                                                    | 1,923,595                 | 490,766                        | 903,923                            | 1,031,345                            |
| 1992             | 13,319                               | 13,070                                   | 9,406                                               | 35,795     | 311,251                                                    | 3,211,086                 | 1,168,304                      | 1,255,567                          | 1,314,358                            |
| 1993             | (11,941)                             | (8,753)                                  | (5,392)                                             | (26,086)   | (158,214)                                                  | 532,899                   | 345,215                        | (124,821)                          | (102,311)                            |
| 1994             | 46,538                               | 39,910                                   | 29,105                                              | 115,553    | 799,370                                                    | 5,658,038                 | 2,298,300                      | 2,504,629                          | 2,516,185                            |
| 1995             | 20,014                               | 20,620                                   | 11,791                                              | 52,425     | 247,645                                                    | 4,017,881                 | 1,513,362                      | 919,965                            | 841,178                              |
| 1996             | 57,320                               | 47,288                                   | 23,483                                              | 128,091    | 718,807                                                    | 8,112,547                 | 3,969,388                      | 2,430,979                          | 2,231,167                            |
| 1997             | 67,416                               | 52,935                                   | 21,955                                              | 142,306    | 1,038,568                                                  | 6,900,694                 | 2,845,506                      | 2,589,077                          | 2,417,154                            |
| 1998             | (10,647)                             | (9,488)                                  | (4,554)                                             | (24,689)   | (121,313)                                                  | 238,073                   | (314,172)                      | (245,259)                          | (219,762)                            |
| 1999             | 31,618                               | 25,288                                   | 10,570                                              | 67,476     | 514,166                                                    | 5,319,699                 | 2,316,189                      | 1,587,062                          | 1,295,067                            |
| 2000             | 58,591                               | 42,543                                   | 15,078                                              | 116,212    | 860,785                                                    | 8,018,823                 | 3,043,577                      | 2,963,119                          | 3,035,444                            |
| 2001             | 358,726                              | 248,919                                  | 213,001                                             | 820,646    | 4,045,747                                                  | 24,049,006                | 9,826,265                      | 14,784,423                         | 15,166,621                           |
| 2002             | 186,186                              | 102,222                                  | 60,093                                              | 348,501    | 2,190,992                                                  | 16,807,227                | 6,740,615                      | 8,238,545                          | 8,538,761                            |
| 2003             | 175,952                              | 115,069                                  | 95,023                                              | 386,044    | 2,487,701                                                  | 20,922,559                | 8,769,499                      | 10,363,118                         | 10,792,509                           |
| 2004             | 242,315                              | 134,187                                  | 103,360                                             | 479,862    | 2,412,375                                                  | 21,059,461                | 9,018,396                      | 11,887,828                         | 12,476,791                           |
| 2005             | 278,132                              | 143,598                                  | 145,812                                             | 567,542    | 2,734,374                                                  | 28,939,713                | 12,758,363                     | 12,347,806                         | 12,701,242                           |
| 2006             | 434,003                              | 542,507                                  | 505,453                                             | 1,481,963  | 4,279,689                                                  | 32,872,956                | 16,632,061                     | 16,425,914                         | 19,293,623                           |
| 2007             | 590,459                              | 738,139                                  | 687,740                                             | 2,016,338  | 4,884,615                                                  | 36,569,764                | 16,650,156                     | 20,880,413                         | 24,428,791                           |
| 2008             | 689,860                              | 862,132                                  | 803,342                                             | 2,355,334  | 5,704,591                                                  | 44,287,072                | 18,806,430                     | 23,601,489                         | 27,683,761                           |
| 2009             | 471,576                              | 374,214                                  | 388,821                                             | 1,234,611  | 6,222,720                                                  | 35,919,615                | 17,427,406                     | 21,193,631                         | 21,056,894                           |
| 2010             | 493,069                              | 391,422                                  | 416,518                                             | 1,301,009  | 6,494,048                                                  | 45,056,631                | 18,338,525                     | 22,334,405                         | 22,179,499                           |
| 2011             | 496,138                              | 391,567                                  | 424,244                                             | 1,311,949  | 6,535,307                                                  | 41,237,117                | 18,371,517                     | 22,402,363                         | 22,246,938                           |
| 2012             | 513,832                              | 404,948                                  | 448,456                                             | 1,367,236  | 6,747,998                                                  | 40,192,527                | 19,566,716                     | 24,118,512                         | 23,976,313                           |
| 2013             | 560,013                              | 444,221                                  | 504,326                                             | 1,508,560  | 7,372,283                                                  | 51,426,238                | 21,483,111                     | 26,452,214                         | 26,263,763                           |
| 2014             | 600,463                              | 476,875                                  | 556,355                                             | 1,633,693  | 7,891,382                                                  | 46,233,371                | 23,325,486                     | 28,820,000                         | 28,606,708                           |
| 2015             | 615,599                              | 484,040                                  | 585,983                                             | 1,685,622  | 8,005,259                                                  | 51,650,783                | 23,684,134                     | 29,258,892                         | 29,037,962                           |
| 2016             | 627,608                              | 488,983                                  | 611,797                                             | 1,728,388  | 8,083,847                                                  | 59,438,512                | 24,552,753                     | 30,642,124                         | 30,449,028                           |
| 2017             | 625,762                              | 481,926                                  | 621,137                                             | 1,728,825  | 7,971,646                                                  | 52,444,860                | 23,696,330                     | 29,341,378                         | 29,129,658                           |
| 2018             | 648,401                              | 495,855                                  | 661,842                                             | 1,806,098  | 8,193,075                                                  | 52,533,464                | 25,051,903                     | 31,333,909                         | 31,141,761                           |
| 2019             | 669,420                              | 508,101                                  | 701,669                                             | 1,879,190  | 8,387,740                                                  | 60,423,941                | 25,812,404                     | 32,346,051                         | 32,148,359                           |
| 2020             | 642,270                              | 480,276                                  | 679,668                                             | 1,802,214  | 7,945,406                                                  | 53,737,217                | 24,377,874                     | 30,566,928                         | 30,397,902                           |
| 2021             | 642,532                              | 479,487                                  | 681,741                                             | 1,803,760  | 7,932,881                                                  | 52,687,280                | 24,368,714                     | 30,570,232                         | 30,403,674                           |
| 2022             | 623,724                              | 463,956                                  | 657,470                                             | 1,745,150  | 7,686,003                                                  | 48,842,618                | 23,638,630                     | 29,701,958                         | 29,555,328                           |
| 2023             | 627,067                              | 466,716                                  | 661,782                                             | 1,755,565  | 7,729,871                                                  | 52,722,222                | 23,897,354                     | 30,081,432                         | 29,938,566                           |
| 2024             | 648,871                              | 484,720                                  | 689,917                                             | 1,823,508  | 8,016,067                                                  | 57,790,267                | 24,697,461                     | 31,006,976                         | 30,838,190                           |
| 2025             | 646,099                              | 482,429                                  | 686,339                                             | 1,814,867  | 7,979,674                                                  | 48,512,593                | 24,616,451                     | 30,926,406                         | 30,762,216                           |
| 2026             | 650,304                              | 485,903                                  | 691,768                                             | 1,827,975  | 8,034,879                                                  | 60,190,056                | 24,745,569                     | 31,059,481                         | 30,888,518                           |
| 2027             | 640,989                              | 478,212                                  | 679,748                                             | 1,798,949  | 7,912,611                                                  | 54,011,665                | 24,523,835                     | 30,875,285                         | 30,722,567                           |
| 2028             | 645,211                              | 481,697                                  | 685,195                                             | 1,812,103  | 7,968,037                                                  | 53,120,240                | 26,396,467                     | 30,734,219                         | 30,566,014                           |
| 2029             | 637,413                              | 475,259                                  | 675,134                                             | 1,787,806  | 7,865,686                                                  | 52,515,131                | 24,297,368                     | 30,556,325                         | 30,402,216                           |
| 2030             | 642,289                              | 479,286                                  | 681,426                                             | 1,803,001  | 7,929,672                                                  | 54,700,535                | 24,326,610                     | 30,503,278                         | 30,335,059                           |
| 2031             | 633,951                              | 472,401                                  | 670,665                                             | 1,777,017  | 7,820,233                                                  | 49,592,734                | 24,166,751                     | 30,405,070                         | 30,256,324                           |
| 2032             | 645,931                              | 482,292                                  | 686,126                                             | 1,814,349  | 7,977,488                                                  | 53,937,159                | 24,348,708                     | 30,465,093                         | 30,286,457                           |
| 2033             | 676,778                              | 507,762                                  | 725,926                                             | 1,910,466  | 8,382,352                                                  | 57,267,841                | 26,232,078                     | 33,092,914                         | 32,920,858                           |
| 2034             | 653,115                              | 488,224                                  | 695,394                                             | 1,836,733  | 8,071,777                                                  | 53,626,236                | 24,758,054                     | 31,024,630                         | 30,845,599                           |
| 2035             | 640,445                              | 477,760                                  | 679,043                                             | 1,797,248  | 7,905,458                                                  | 56,713,224                | 26,080,351                     | 33,688,778                         | 33,639,744                           |
| TOTAL            | 19,957,002                           | 15,859,791                               | 19,968,644                                          | 55,785,437 | 256,877,956                                                | 1,733,653,914             | 780,276,480                    | 953,980,209                        | 961,433,616                          |

a) Excludes extra peaking costs assigned directly to contractors. Refer to Appendix B text discussion of Table B-17 under "Project Water Charges."

b) Costs for 1968 through 1987 are for an interim facility.

c) The relatively minor costs of Del Valle Pumping Plant have been combined with those of South Bay Pumping Plant to simplify the allocation procedures.

**TABLE B-12. Variable OMP&R Costs to be Reimbursed through  
Variable OMP&R Component of Transportation Charge <sup>a</sup>**

(in dollars)

Sheet 2 of 3

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued)          |                                           |                                 |                                             |                                            |                                             |                                           |                                         |                                     |
|----------------------|------------------------------------------|-------------------------------------------|---------------------------------|---------------------------------------------|--------------------------------------------|---------------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------|
|                      | Reach 16A                                | Reach 17E                                 | Reach 18A                       | Reach 22B                                   | Reach 23                                   | Reach 24                                    | Reach 26A                                 | Reach 28J                               | Reach 29A                           |
|                      | Chrisman<br>Pumping<br>Plant<br><br>[10] | Edmonston<br>Pumping<br>Plant<br><br>[11] | Alamo<br>Powerplant<br><br>[12] | Pearblossom<br>Pumping<br>Plant<br><br>[13] | Mojave<br>Siphon<br>Powerplant<br><br>[14] | Silverwood<br>Lake <sup>d</sup><br><br>[15] | Devil<br>Canyon<br>Powerplant<br><br>[16] | Lake<br>Perris <sup>d</sup><br><br>[17] | Oso<br>Pumping<br>Plant<br><br>[18] |
| 1962                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1963                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1964                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1965                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1966                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1967                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1968                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1969                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1970                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1971                 | 0                                        | 0                                         | 0                               | 0                                           | 0                                          | 0                                           | 0                                         | 0                                       | 0                                   |
| 1972                 | 180,602                                  | 542,625                                   | 0                               | 25,568                                      | 0                                          | 0                                           | (3,024)                                   | 0                                       | 102,315                             |
| 1973                 | 441,598                                  | 1,548,428                                 | 0                               | 231,389                                     | 0                                          | 0                                           | (436,768)                                 | 0                                       | 158,587                             |
| 1974                 | 618,864                                  | 2,164,223                                 | 0                               | 354,093                                     | 0                                          | 0                                           | (521,656)                                 | 0                                       | 193,311                             |
| 1975                 | 1,149,731                                | 4,010,395                                 | 0                               | 604,161                                     | 0                                          | 0                                           | (1,071,023)                               | 0                                       | 350,436                             |
| 1976                 | 1,561,395                                | 5,443,936                                 | 0                               | 932,444                                     | 0                                          | 0                                           | (1,519,156)                               | 0                                       | 362,767                             |
| 1977                 | 703,802                                  | 2,360,624                                 | 0                               | 358,028                                     | 0                                          | 0                                           | (1,175,966)                               | 0                                       | 111,135                             |
| 1978                 | 1,186,696                                | 4,180,131                                 | 0                               | 1,551,015                                   | 0                                          | 0                                           | (3,038,194)                               | 0                                       | 125,183                             |
| 1979                 | 1,581,250                                | 5,475,688                                 | 0                               | 1,881,587                                   | 0                                          | 0                                           | (3,419,581)                               | 0                                       | 138,384                             |
| 1980                 | 2,102,439                                | 7,028,235                                 | 0                               | 1,762,063                                   | 0                                          | 0                                           | (3,318,152)                               | 0                                       | 236,768                             |
| 1981                 | 2,838,773                                | 9,351,931                                 | 0                               | 2,296,771                                   | 0                                          | 0                                           | (3,842,971)                               | 0                                       | 444,280                             |
| 1982                 | 2,424,920                                | 8,352,207                                 | 0                               | 1,498,620                                   | 0                                          | 0                                           | (2,736,072)                               | 0                                       | 539,245                             |
| 1983                 | 540,330                                  | 1,582,582                                 | 0                               | 341,957                                     | 0                                          | 384,275                                     | (5,478,830)                               | 0                                       | 71,197                              |
| 1984                 | 1,129,131                                | 3,448,759                                 | 0                               | 622,123                                     | 0                                          | 0                                           | (7,326,265)                               | (10,080)                                | 240,134                             |
| 1985                 | 2,781,953                                | 9,261,674                                 | 0                               | 1,195,768                                   | 0                                          | 0                                           | (10,477,567)                              | (56,570)                                | 874,069                             |
| 1986                 | 4,999,949                                | 16,956,023                                | (1,013,756)                     | 2,359,599                                   | 0                                          | 0                                           | (11,484,996)                              | 0                                       | 1,269,590                           |
| 1987                 | 4,456,059                                | 14,684,476                                | (1,026,193)                     | 1,831,238                                   | 0                                          | 131,606                                     | (10,814,483)                              | 53,242                                  | 1,325,936                           |
| 1988                 | 5,126,229                                | 16,819,159                                | (744,374)                       | 2,375,784                                   | 0                                          | 0                                           | (14,495,967)                              | 0                                       | 1,421,097                           |
| 1989                 | 8,369,623                                | 28,090,313                                | (766,443)                       | 4,102,557                                   | 0                                          | 686,468                                     | (18,532,961)                              | 89,890                                  | 2,013,335                           |
| 1990                 | 13,630,073                               | 48,369,421                                | (834,673)                       | 6,504,876                                   | 0                                          | 89,075                                      | (20,911,839)                              | 147,163                                 | 2,857,409                           |
| 1991                 | 2,426,220                                | 8,641,086                                 | (269,625)                       | 996,352                                     | 0                                          | 0                                           | (4,884,013)                               | 0                                       | 534,818                             |
| 1992                 | 2,642,161                                | 8,854,347                                 | (934,311)                       | 1,167,670                                   | 0                                          | 156,847                                     | (9,513,281)                               | (61,233)                                | 717,740                             |
| 1993                 | (582,580)                                | (2,649,876)                               | (56,908)                        | (253,503)                                   | 0                                          | (34,870)                                    | (7,502,549)                               | 0                                       | 68,719                              |
| 1994                 | 5,276,189                                | 18,302,830                                | (58,712)                        | 2,572,826                                   | 0                                          | 0                                           | (11,662,318)                              | 147,989                                 | 1,203,006                           |
| 1995                 | 1,677,210                                | 5,571,517                                 | (1,242,189)                     | 1,025,717                                   | 0                                          | 467,095                                     | (9,742,248)                               | 0                                       | 247,869                             |
| 1996                 | 4,723,600                                | 16,483,976                                | (2,644,648)                     | 2,487,165                                   | (857,876)                                  | 1,959,474                                   | (12,358,465)                              | 0                                       | 895,929                             |
| 1997                 | 5,424,334                                | 19,413,834                                | (2,488,338)                     | 3,037,087                                   | (1,680,469)                                | 0                                           | (13,293,791)                              | 111,776                                 | 897,657                             |
| 1998                 | (488,690)                                | (1,683,606)                               | (1,969,187)                     | (402,338)                                   | (1,217,950)                                | (144,207)                                   | (10,183,555)                              | 0                                       | (25,895)                            |
| 1999                 | 3,326,334                                | 12,889,920                                | (2,811,928)                     | 1,795,375                                   | (2,482,354)                                | (4)                                         | (14,772,635)                              | (4)                                     | 677,032                             |
| 2000                 | 6,985,918                                | 25,206,821                                | (5,129,549)                     | 3,965,245                                   | (4,429,149)                                | (4)                                         | (25,857,029)                              | (4)                                     | 1,215,093                           |
| 2001                 | 34,168,450                               | 126,253,821                               | (3,298,048)                     | 18,936,837                                  | (3,649,034)                                | (3)                                         | (19,510,279)                              | (3)                                     | 6,409,025                           |
| 2002                 | 19,287,645                               | 70,880,766                                | (4,926,146)                     | 10,444,621                                  | (5,255,302)                                | (2)                                         | (24,676,762)                              | (2)                                     | 3,719,061                           |
| 2003                 | 24,604,455                               | 90,561,339                                | (3,431,664)                     | 14,432,726                                  | (6,760,773)                                | (1)                                         | (28,047,969)                              | (1)                                     | 4,378,568                           |
| 2004                 | 28,497,371                               | 104,778,229                               | (6,227,543)                     | 16,376,616                                  | (7,691,607)                                | 0                                           | (31,246,141)                              | 0                                       | 5,297,989                           |
| 2005                 | 28,859,498                               | 102,413,847                               | (6,140,331)                     | 18,183,010                                  | (6,778,759)                                | 0                                           | (30,599,808)                              | 0                                       | 4,111,678                           |
| 2006                 | 40,946,961                               | 145,423,964                               | (3,692,647)                     | 23,083,255                                  | (7,076,716)                                | 0                                           | (26,385,376)                              | 0                                       | 7,830,756                           |
| 2007                 | 51,857,122                               | 184,162,871                               | (4,294,257)                     | 29,674,189                                  | (6,676,525)                                | 0                                           | (25,202,114)                              | 0                                       | 9,638,982                           |
| 2008                 | 58,767,212                               | 208,727,721                               | (6,048,353)                     | 32,949,111                                  | (8,911,711)                                | 0                                           | (33,686,209)                              | 0                                       | 11,201,062                          |
| 2009                 | 49,248,027                               | 184,675,289                               | (5,510,634)                     | 27,794,433                                  | (6,491,520)                                | 0                                           | (31,022,541)                              | 0                                       | 10,652,848                          |
| 2010                 | 51,897,900                               | 194,621,177                               | (5,485,254)                     | 29,302,324                                  | (6,448,439)                                | 0                                           | (31,029,891)                              | 0                                       | 11,148,835                          |
| 2011                 | 52,069,886                               | 195,255,920                               | (5,492,272)                     | 29,382,434                                  | (6,439,573)                                | 0                                           | (31,893,599)                              | 0                                       | 11,161,070                          |
| 2012                 | 56,168,246                               | 210,702,310                               | (5,846,792)                     | 32,458,204                                  | (6,992,862)                                | 0                                           | (32,763,346)                              | 0                                       | 11,809,184                          |
| 2013                 | 61,565,599                               | 230,944,976                               | (5,652,150)                     | 35,277,714                                  | (6,744,613)                                | 0                                           | (32,125,194)                              | 0                                       | 12,911,225                          |
| 2014                 | 67,103,976                               | 251,753,837                               | (5,682,708)                     | 38,121,500                                  | (6,771,177)                                | 0                                           | (32,641,434)                              | 0                                       | 14,115,824                          |
| 2015                 | 68,122,187                               | 255,574,256                               | (5,693,994)                     | 38,937,128                                  | (6,858,073)                                | 0                                           | (33,041,336)                              | 0                                       | 14,232,592                          |
| 2016                 | 71,488,045                               | 268,298,853                               | (5,928,879)                     | 41,532,691                                  | (7,202,386)                                | 0                                           | (33,768,201)                              | 0                                       | 14,736,837                          |
| 2017                 | 68,349,692                               | 256,449,909                               | (5,671,857)                     | 39,120,319                                  | (6,907,326)                                | 0                                           | (33,434,896)                              | 0                                       | 14,258,319                          |
| 2018                 | 73,128,292                               | 274,475,377                               | (6,067,643)                     | 43,135,035                                  | (7,731,018)                                | 0                                           | (34,298,153)                              | 0                                       | 14,853,549                          |
| 2019                 | 75,521,711                               | 283,482,631                               | (5,784,357)                     | 42,428,451                                  | (7,167,463)                                | 0                                           | (33,961,637)                              | 0                                       | 16,061,034                          |
| 2020                 | 71,389,307                               | 267,974,386                               | (5,891,065)                     | 41,108,609                                  | (7,377,974)                                | 0                                           | (34,885,535)                              | 0                                       | 14,884,381                          |
| 2021                 | 71,405,903                               | 268,042,003                               | (5,908,063)                     | 41,147,345                                  | (7,429,243)                                | 0                                           | (34,543,452)                              | 0                                       | 14,872,718                          |
| 2022                 | 69,408,812                               | 260,559,379                               | (5,944,769)                     | 39,677,985                                  | (7,434,464)                                | 0                                           | (34,144,124)                              | 0                                       | 14,629,862                          |
| 2023                 | 70,320,061                               | 263,997,398                               | (6,022,332)                     | 40,509,053                                  | (7,566,401)                                | 0                                           | (34,766,355)                              | 0                                       | 14,707,718                          |
| 2024                 | 72,434,864                               | 271,912,441                               | (5,836,681)                     | 41,031,696                                  | (7,336,963)                                | 0                                           | (34,505,483)                              | 0                                       | 15,371,555                          |
| 2025                 | 72,256,736                               | 271,249,878                               | (5,939,914)                     | 41,307,459                                  | (7,438,056)                                | 0                                           | (34,108,290)                              | 0                                       | 15,183,554                          |
| 2026                 | 72,553,633                               | 272,356,870                               | (5,903,866)                     | 41,738,327                                  | (7,468,068)                                | 0                                           | (34,953,352)                              | 0                                       | 15,126,955                          |
| 2027                 | 72,171,632                               | 270,950,594                               | (5,939,780)                     | 41,191,938                                  | (7,426,405)                                | 0                                           | (34,468,637)                              | 0                                       | 15,223,609                          |
| 2028                 | 71,789,931                               | 269,485,056                               | (5,877,637)                     | 41,189,627                                  | (7,387,351)                                | 0                                           | (34,689,003)                              | 0                                       | 15,018,182                          |
| 2029                 | 71,411,489                               | 268,086,300                               | (5,907,069)                     | 40,748,594                                  | (7,429,433)                                | 0                                           | (34,449,309)                              | 0                                       | 15,065,655                          |
| 2030                 | 71,242,576                               | 267,424,422                               | (5,859,915)                     | 40,826,257                                  | (7,360,568)                                | 0                                           | (34,527,546)                              | 0                                       | 14,920,997                          |
| 2031                 | 71,062,053                               | 266,776,153                               | (6,024,291)                     | 41,089,346                                  | (7,927,736)                                | 0                                           | (34,231,695)                              | 0                                       | 14,859,269                          |
| 2032                 | 71,123,577                               | 266,958,800                               | (5,793,849)                     | 40,088,252                                  | (7,549,932)                                | 0                                           | (33,969,558)                              | 0                                       | 15,102,962                          |
| 2033                 | 77,365,540                               | 290,470,067                               | (6,089,764)                     | 44,961,195                                  | (8,106,728)                                | 0                                           | (35,010,839)                              | 0                                       | 16,003,647                          |
| 2034                 | 72,448,217                               | 271,945,261                               | (5,848,825)                     | 41,031,870                                  | (7,713,779)                                | 0                                           | (33,808,308)                              | 0                                       | 15,301,073                          |
| 2035                 | 79,163,918                               | 297,474,893                               | (6,169,917)                     | 42,800,126                                  | (7,951,103)                                | 0                                           | (35,645,057)                              | 0                                       | 18,138,648                          |
| TOTAL                | 2,226,434,627                            | 8,285,802,673                             | (217,824,100)                   | 1,269,239,514                               | (260,126,879)                              | 3,695,749                                   | (1,372,416,784)                           | 422,163                                 | 462,206,369                         |

d) These values represent a proportionate allocation of the total variable OMP&R costs of pumping and recovery plants (Table B-3) associated with net annual withdrawals from storage for Project Transportation Facilities. The allocation is determined annually by applying the following ratio, calculated from the data shown in Table B-6: "Reservoir Storage Changes" (withdrawals, as a positive value) conveyed through each plant, divided by "Total" annual quantity conveyed through each plant, in acre-feet. The costs so determined are accumulated for all upstream plants for each year, for each respective reservoir.

**TABLE B-12. Variable OMP&R Costs to be Reimbursed through  
Variable OMP&R Component of Transportation Charge <sup>a</sup>**

(in dollars)

Sheet 3 of 3

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |                              |                       |                              |                                                    |                                                          |                | GRAND<br><br>TOTAL |
|----------------------|---------------------------------|------------------------------|-----------------------|------------------------------|----------------------------------------------------|----------------------------------------------------------|----------------|--------------------|
|                      | Reach 29G                       | Reach 29H                    | Reach 29J             | Reach 30                     | Reach 31A                                          | Reach 33A                                                | Total          |                    |
|                      | Warne<br>Powerplant             | Pyramid<br>Lake <sup>d</sup> | Castaic<br>Powerplant | Castaic<br>Lake <sup>d</sup> | Las Perillas<br>& Badger Hill<br>Pumping<br>Plants | Devil's Den,<br>Bluestone &<br>Polonio<br>Pumping Plants |                |                    |
|                      | [19]                            | [20]                         | [21]                  | [22]                         | [23]                                               | [24]                                                     | [25]           | [26]               |
| 1962                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 0              | 36,970             |
| 1963                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 0              | 57,711             |
| 1964                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 0              | 74,134             |
| 1965                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 0              | 142,609            |
| 1966                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 0              | 192,605            |
| 1967                 | 0                               | 0                            | 0                     | 0                            | 0                                                  | 0                                                        | 13,881         | 236,998            |
| 1968                 | 0                               | 0                            | 0                     | 0                            | 118,676                                            | 0                                                        | 774,253        | 1,117,913          |
| 1969                 | 0                               | 0                            | 0                     | 0                            | 78,350                                             | 0                                                        | 507,516        | 773,646            |
| 1970                 | 0                               | 0                            | 0                     | 0                            | 136,429                                            | 0                                                        | 693,842        | 1,103,798          |
| 1971                 | 0                               | 0                            | 0                     | 0                            | 166,296                                            | 0                                                        | 1,121,164      | 1,513,435          |
| 1972                 | 0                               | 0                            | (211,144)             | 0                            | 237,638                                            | 0                                                        | 2,648,786      | 3,261,922          |
| 1973                 | 0                               | 0                            | (1,057,564)           | 0                            | 120,913                                            | 0                                                        | 2,661,036      | 3,168,975          |
| 1974                 | 0                               | 0                            | (1,547,884)           | 0                            | 118,582                                            | 0                                                        | 3,336,872      | 3,919,920          |
| 1975                 | 0                               | 0                            | (2,455,461)           | 0                            | 94,848                                             | 0                                                        | 5,689,034      | 6,053,571          |
| 1976                 | 0                               | 0                            | (2,827,557)           | 0                            | 141,260                                            | 0                                                        | 7,886,569      | 8,478,786          |
| 1977                 | 0                               | 0                            | (3,734,462)           | 0                            | 71,311                                             | 0                                                        | 628,796        | 1,164,427          |
| 1978                 | 0                               | 0                            | (1,542,479)           | 0                            | 179,925                                            | 0                                                        | 6,979,261      | 7,587,308          |
| 1979                 | 0                               | 0                            | (2,773,323)           | 0                            | 192,126                                            | 0                                                        | 9,249,255      | 9,870,628          |
| 1980                 | 0                               | 0                            | (3,408,863)           | 0                            | 168,458                                            | 0                                                        | 9,882,560      | 10,425,874         |
| 1981                 | 0                               | 0                            | (2,834,322)           | 0                            | 169,177                                            | 0                                                        | 16,972,365     | 17,563,899         |
| 1982                 | (783,626)                       | 0                            | (3,463,971)           | 0                            | 168,390                                            | 0                                                        | 12,859,335     | 13,477,272         |
| 1983                 | (495,041)                       | 65,741                       | (3,260,764)           | (3,176,515)                  | 17,920                                             | 0                                                        | (7,537,336)    | (7,452,772)        |
| 1984                 | (2,027,345)                     | 0                            | (2,336,089)           | (2,151,129)                  | 112,679                                            | 0                                                        | (4,435,858)    | (4,159,493)        |
| 1985                 | (5,930,176)                     | 0                            | (15,698,638)          | 0                            | 146,843                                            | 0                                                        | (10,322,391)   | (9,861,183)        |
| 1986                 | (5,579,301)                     | 0                            | (11,072,448)          | 0                            | 297,886                                            | 0                                                        | 10,799,251     | 11,622,736         |
| 1987                 | (6,304,539)                     | 68,410                       | (11,562,269)          | (41,897)                     | 245,082                                            | 0                                                        | 5,787,267      | 6,701,446          |
| 1988                 | (6,993,235)                     | 54,038                       | (12,292,638)          | (211,526)                    | 214,519                                            | 0                                                        | 5,288,073      | 6,239,206          |
| 1989                 | (8,235,085)                     | 14,390                       | (14,514,469)          | 126,791                      | 282,180                                            | 0                                                        | 23,323,739     | 24,585,083         |
| 1990                 | (11,011,065)                    | 0                            | (20,116,506)          | 245,180                      | 416,832                                            | 0                                                        | 46,159,453     | 48,154,173         |
| 1991                 | (3,600,495)                     | 439,068                      | (6,579,194)           | 0                            | 3,610                                              | 0                                                        | 2,057,456      | 2,462,221          |
| 1992                 | (5,508,780)                     | 0                            | (9,493,502)           | (935,650)                    | 101,665                                            | 0                                                        | (5,857,012)    | (5,509,966)        |
| 1993                 | (4,525,955)                     | (13,291)                     | (9,266,007)           | (446,527)                    | (111,306)                                          | 0                                                        | (24,723,671)   | (24,907,971)       |
| 1994                 | (5,813,538)                     | 20,518                       | (10,547,914)          | (86,993)                     | 206,258                                            | 0                                                        | 12,537,293     | 13,452,216         |
| 1995                 | (1,934,202)                     | 0                            | (4,049,615)           | 0                            | 243,434                                            | 0                                                        | (443,026)      | (142,956)          |
| 1996                 | (4,248,531)                     | 0                            | (8,457,232)           | 0                            | 296,170                                            | 0                                                        | 15,023,643     | 15,870,541         |
| 1997                 | (4,797,589)                     | 0                            | (8,727,328)           | (897)                        | 298,483                                            | 208,816                                                  | 13,156,006     | 14,336,880         |
| 1998                 | (740,480)                       | (931,305)                    | (3,360,851)           | (2,108,804)                  | (51,634)                                           | (87,016)                                                 | (23,936,638)   | (24,082,640)       |
| 1999                 | (5,526,541)                     | (4)                          | (9,954,674)           | (4)                          | 159,358                                            | 234,077                                                  | (5,948,035)    | (5,366,393)        |
| 2000                 | (9,464,490)                     | (4)                          | (17,958,033)          | (4)                          | 231,108                                            | 380,555                                                  | (7,792,563)    | (6,815,566)        |
| 2001                 | (7,987,833)                     | (3)                          | (13,981,232)          | (3)                          | 1,080,182                                          | 2,152,324                                                | 204,400,516    | 209,266,909        |
| 2002                 | (10,286,902)                    | (2)                          | (18,455,024)          | (2)                          | 529,085                                            | 1,320,943                                                | 82,907,125     | 85,446,618         |
| 2003                 | (10,281,922)                    | (1)                          | (17,307,974)          | (1)                          | 621,149                                            | 1,482,525                                                | 121,098,141    | 123,971,886        |
| 2004                 | (12,033,953)                    | 0                            | (20,022,179)          | 0                            | 651,104                                            | 1,718,113                                                | 134,540,475    | 137,432,712        |
| 2005                 | (8,251,156)                     | 0                            | (13,698,272)          | 0                            | 826,136                                            | 1,669,939                                                | 157,342,906    | 160,644,822        |
| 2006                 | (11,846,663)                    | 0                            | (21,072,103)          | 0                            | 1,157,341                                          | 2,954,530                                                | 234,547,856    | 240,309,508        |
| 2007                 | (10,589,552)                    | 0                            | (18,964,191)          | 0                            | 1,606,271                                          | 4,691,288                                                | 314,433,208    | 321,334,161        |
| 2008                 | (15,175,359)                    | 0                            | (26,611,644)          | 0                            | 1,705,919                                          | 4,256,483                                                | 341,552,984    | 349,612,909        |
| 2009                 | (14,881,913)                    | 0                            | (25,170,192)          | 0                            | 2,051,045                                          | 5,613,779                                                | 292,556,167    | 300,013,498        |
| 2010                 | (14,913,517)                    | 0                            | (25,328,107)          | 0                            | 2,137,319                                          | 5,871,977                                                | 319,683,384    | 327,478,441        |
| 2011                 | (15,034,490)                    | 0                            | (25,428,823)          | 0                            | 2,138,050                                          | 5,874,159                                                | 315,850,697    | 323,697,953        |
| 2012                 | (15,277,004)                    | 0                            | (25,992,105)          | 0                            | 2,204,739                                          | 6,074,916                                                | 340,399,558    | 348,514,792        |
| 2013                 | (15,436,252)                    | 0                            | (26,220,858)          | 0                            | 2,401,605                                          | 6,664,187                                                | 389,211,565    | 398,092,408        |
| 2014                 | (15,906,509)                    | 0                            | (26,940,164)          | 0                            | 2,565,297                                          | 7,154,169                                                | 419,858,176    | 429,383,251        |
| 2015                 | (15,814,198)                    | 0                            | (26,768,889)          | 0                            | 2,601,207                                          | 7,261,655                                                | 432,184,306    | 441,875,187        |
| 2016                 | (16,225,521)                    | 0                            | (27,487,248)          | 0                            | 2,625,988                                          | 7,335,841                                                | 460,488,437    | 470,300,672        |
| 2017                 | (15,909,387)                    | 0                            | (26,970,762)          | 0                            | 2,590,608                                          | 7,229,930                                                | 433,716,775    | 443,417,246        |
| 2018                 | (16,041,534)                    | 0                            | (27,261,438)          | 0                            | 2,660,434                                          | 7,438,943                                                | 464,352,881    | 474,352,054        |
| 2019                 | (17,015,372)                    | 0                            | (29,043,009)          | 0                            | 2,721,822                                          | 7,622,689                                                | 485,597,255    | 495,864,185        |
| 2020                 | (16,653,246)                    | 0                            | (28,309,158)          | 0                            | 2,582,334                                          | 7,205,164                                                | 451,107,124    | 460,854,744        |
| 2021                 | (16,663,697)                    | 0                            | (28,346,624)          | 0                            | 2,578,386                                          | 7,193,340                                                | 450,378,516    | 460,115,157        |
| 2022                 | (16,909,368)                    | 0                            | (28,771,413)          | 0                            | 2,500,533                                          | 6,960,308                                                | 432,271,275    | 441,702,428        |
| 2023                 | (16,904,417)                    | 0                            | (28,763,149)          | 0                            | 2,514,367                                          | 7,001,718                                                | 441,667,235    | 451,152,671        |
| 2024                 | (17,051,903)                    | 0                            | (29,017,307)          | 0                            | 2,604,616                                          | 7,271,859                                                | 461,211,588    | 471,051,163        |
| 2025                 | (16,918,079)                    | 0                            | (28,787,066)          | 0                            | 2,593,139                                          | 7,237,508                                                | 451,454,535    | 461,249,076        |
| 2026                 | (16,741,641)                    | 0                            | (28,483,648)          | 0                            | 2,610,549                                          | 7,289,622                                                | 465,009,005    | 474,871,859        |
| 2027                 | (17,107,637)                    | 0                            | (29,109,736)          | 0                            | 2,571,994                                          | 7,174,210                                                | 455,365,134    | 465,076,694        |
| 2028                 | (16,756,801)                    | 0                            | (28,507,565)          | 0                            | 2,589,469                                          | 7,226,527                                                | 454,897,375    | 464,677,515        |
| 2029                 | (17,024,240)                    | 0                            | (28,969,810)          | 0                            | 2,557,194                                          | 7,129,914                                                | 448,990,325    | 458,643,817        |
| 2030                 | (16,727,478)                    | 0                            | (28,459,349)          | 0                            | 2,577,373                                          | 7,190,317                                                | 451,112,568    | 460,845,241        |
| 2031                 | (16,779,107)                    | 0                            | (28,564,483)          | 0                            | 2,542,862                                          | 7,087,012                                                | 444,310,262    | 453,907,512        |
| 2032                 | (16,804,031)                    | 0                            | (28,694,562)          | 0                            | 2,592,451                                          | 7,235,447                                                | 449,326,974    | 459,118,811        |
| 2033                 | (16,825,821)                    | 0                            | (28,790,365)          | 0                            | 2,720,121                                          | 7,617,602                                                | 493,828,346    | 504,121,164        |
| 2034                 | (16,825,644)                    | 0                            | (28,740,041)          | 0                            | 2,622,184                                          | 7,324,447                                                | 457,990,974    | 467,899,484        |
| 2035                 | (20,335,543)                    | 0                            | (34,795,031)          | 0                            | 2,569,737                                          | 7,167,454                                                | 492,540,222    | 502,242,928        |
| TOTAL                | (625,457,704)                   | (282,445)                    | (1,112,938,722)       | (8,787,981)                  | 81,476,076                                         | 210,437,271                                              | 13,371,224,046 | 13,683,887,439     |

**TABLE B-13. Capital and Operating Costs of Project Conservation Facilities to be Reimbursed through Delta Water Charge**

| Calendar<br><br>Year | (in dollars)                                                                                                                         |                                         |                                 |                                               |                                                       |                                 | Total |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------|-----------------------------------------------|-------------------------------------------------------|---------------------------------|-------|
|                      | Initial Project Conservation Facilities<br>(Portions of Upper Feather Lakes, Oroville-Thermalito and California Aqueduct Facilities) |                                         |                                 |                                               | Planning and<br>Pre-operating<br>Costs <sup>a f</sup> |                                 |       |
|                      | Capital<br>Costs <sup>a</sup>                                                                                                        | Capital<br>Cost<br>Credits <sup>b</sup> | Operating<br>Costs <sup>c</sup> | Application of Oroville<br>Power Revenues to: |                                                       |                                 |       |
|                      |                                                                                                                                      |                                         |                                 | Capital<br>Costs <sup>d</sup>                 |                                                       | Operating<br>Costs <sup>e</sup> |       |
| [1]                  | [2]                                                                                                                                  | [3]                                     | [4]                             | [5]                                           | [6]                                                   | [7]                             |       |
| 1952                 | 171,322                                                                                                                              | 0                                       | 0                               | 0                                             | 0                                                     | 171,322                         |       |
| 1953                 | 312,190                                                                                                                              | 0                                       | 0                               | 0                                             | 0                                                     | 312,190                         |       |
| 1954                 | 308,624                                                                                                                              | 0                                       | 0                               | 0                                             | 0                                                     | 308,624                         |       |
| 1955                 | 194,645                                                                                                                              | 0                                       | 0                               | 0                                             | 0                                                     | 194,645                         |       |
| 1956                 | 1,357,077                                                                                                                            | 0                                       | 0                               | 0                                             | 0                                                     | 1,357,077                       |       |
| 1957                 | 6,210,709                                                                                                                            | 0                                       | 0                               | 0                                             | 0                                                     | 6,210,709                       |       |
| 1958                 | 9,510,916                                                                                                                            | 0                                       | 0                               | 0                                             | 0                                                     | 9,510,916                       |       |
| 1959                 | 11,390,586                                                                                                                           | 0                                       | 0                               | 0                                             | 0                                                     | 11,390,586                      |       |
| 1960                 | 14,456,356                                                                                                                           | (4,850,000)                             | 0                               | 0                                             | 0                                                     | 9,606,356                       |       |
| 1961                 | 18,682,616                                                                                                                           | (431,527)                               | 0                               | 0                                             | 0                                                     | 18,251,089                      |       |
| 1962                 | 9,012,960                                                                                                                            | (479,280)                               | 0                               | 0                                             | 0                                                     | 8,533,680                       |       |
| 1963                 | 72,965,728                                                                                                                           | (478,743)                               | (14,000)                        | 0                                             | 0                                                     | 72,477,985                      |       |
| 1964                 | 62,493,755                                                                                                                           | (751,330)                               | (14,000)                        | 0                                             | 0                                                     | 61,836,205                      |       |
| 1965                 | 70,920,988                                                                                                                           | (763,541)                               | (14,000)                        | 0                                             | 0                                                     | 70,695,297                      |       |
| 1966                 | 125,265,788                                                                                                                          | (748,649)                               | (14,000)                        | 0                                             | 0                                                     | 125,584,162                     |       |
| 1967                 | 94,374,172                                                                                                                           | (812,145)                               | (13,446)                        | 0                                             | 0                                                     | 94,737,793                      |       |
| 1968                 | 39,889,088                                                                                                                           | (431,574)                               | 1,303,821                       | (951,000)                                     | 0                                                     | 40,603,734                      |       |
| 1969                 | 5,279,981                                                                                                                            | (259,015)                               | 2,890,772                       | (11,007,000)                                  | 0                                                     | (2,493,395)                     |       |
| 1970                 | 4,130,490                                                                                                                            | (203,733)                               | 4,818,634                       | (14,650,000)                                  | (1,500,000)                                           | (6,887,950)                     |       |
| 1971                 | 3,877,493                                                                                                                            | (193,631)                               | 6,026,480                       | (14,650,000)                                  | (1,500,000)                                           | (6,030,904)                     |       |
| 1972                 | 4,569,024                                                                                                                            | (196,361)                               | 5,393,011                       | (14,650,000)                                  | (1,500,000)                                           | (6,096,952)                     |       |
| 1973                 | 3,985,414                                                                                                                            | (136,997)                               | 6,135,774                       | (14,650,000)                                  | (1,500,000)                                           | (5,962,425)                     |       |
| 1974                 | 6,660,000                                                                                                                            | (137,503)                               | 6,944,723                       | (17,950,000)                                  | (1,500,000)                                           | (5,780,873)                     |       |
| 1975                 | 8,084,450                                                                                                                            | (234,567)                               | 7,697,390                       | (14,650,000)                                  | (1,500,000)                                           | (456,539)                       |       |
| 1976                 | 5,870,531                                                                                                                            | (204,944)                               | 7,067,037                       | (14,650,000)                                  | (1,500,000)                                           | (3,212,142)                     |       |
| 1977                 | 21,285,849                                                                                                                           | (150,214)                               | 10,547,977                      | (14,650,000)                                  | (1,500,000)                                           | 16,391,031                      |       |
| 1978                 | 7,713,252                                                                                                                            | (64,566)                                | 12,851,158                      | (14,650,000)                                  | (1,500,000)                                           | 6,481,130                       |       |
| 1979                 | 9,030,801                                                                                                                            | 0                                       | 9,547,014                       | (14,650,000)                                  | (1,500,000)                                           | 4,559,689                       |       |
| 1980                 | 10,372,763                                                                                                                           | 0                                       | 13,258,298                      | (14,650,000)                                  | (1,500,000)                                           | 11,119,912                      |       |
| 1981                 | 11,194,479                                                                                                                           | 0                                       | 10,326,538                      | (14,650,000)                                  | (1,500,000)                                           | 9,968,491                       |       |
| 1982                 | 16,634,428                                                                                                                           | 0                                       | 16,154,872                      | (14,650,000)                                  | (1,500,000)                                           | 4,594,682                       |       |
| 1983                 | 12,037,206                                                                                                                           | 0                                       | 22,253,515                      | (34,705,000)                                  | (8,735,000)                                           | 3,751,993                       |       |
| 1984                 | 8,706,748                                                                                                                            | 0                                       | 22,700,224                      | (14,650,000)                                  | (10,348,000)                                          | 9,388,098                       |       |
| 1985                 | 11,921,382                                                                                                                           | 0                                       | 23,464,019                      | (14,650,000)                                  | (8,198,000)                                           | 2,069,024                       |       |
| 1986                 | 20,464,281                                                                                                                           | 0                                       | 26,479,379                      | (14,650,000)                                  | (9,107,000)                                           | 1,602,419                       |       |
| 1987                 | 30,814,266                                                                                                                           | 0                                       | 23,514,665                      | (14,650,000)                                  | (9,451,000)                                           | 1,762,179                       |       |
| 1988                 | 31,587,615                                                                                                                           | 0                                       | 26,003,911                      | (14,650,000)                                  | (8,677,000)                                           | 1,808,899                       |       |
| 1989                 | 10,125,424                                                                                                                           | 0                                       | 28,442,946                      | (14,650,000)                                  | (8,102,000)                                           | 2,678,007                       |       |
| 1990                 | 27,882,191                                                                                                                           | 0                                       | 37,255,751                      | (14,650,000)                                  | (8,498,000)                                           | 1,436,712                       |       |
| 1991                 | 35,966,870                                                                                                                           | 0                                       | 76,428,061                      | (14,650,000)                                  | (9,487,000)                                           | 1,727,664                       |       |
| 1992                 | 27,622,044                                                                                                                           | 0                                       | 32,284,164                      | (14,650,000)                                  | (8,526,000)                                           | 1,707,822                       |       |
| 1993                 | 21,156,123                                                                                                                           | 0                                       | 36,071,890                      | (14,650,000)                                  | (8,768,000)                                           | 1,708,480                       |       |
| 1994                 | 13,755,771                                                                                                                           | 0                                       | 39,321,477                      | (14,650,000)                                  | (7,484,000)                                           | 2,134,392                       |       |
| 1995                 | 14,253,704                                                                                                                           | 0                                       | 44,519,764                      | (14,650,000)                                  | (4,976,939)                                           | 2,042,481                       |       |
| 1996                 | 10,536,189                                                                                                                           | 0                                       | 49,167,138                      | (14,650,000)                                  | (5,503,289)                                           | 2,448,692                       |       |
| 1997                 | 13,959,817                                                                                                                           | 0                                       | 50,303,842                      | (14,650,000)                                  | (5,740,515)                                           | 1,699,730                       |       |
| 1998                 | 3,706,236                                                                                                                            | 0                                       | 53,230,282                      | (14,650,000)                                  | (8,155,000)                                           | 1,193,198                       |       |
| 1999                 | 5,756,399                                                                                                                            | 0                                       | 54,083,724                      | (14,650,000)                                  | (9,198,000)                                           | 9,686                           |       |
| 2000                 | 8,946,372                                                                                                                            | 0                                       | 55,770,292                      | (14,650,000)                                  | (10,452,028)                                          | 13,491                          |       |
| 2001                 | 7,763,464                                                                                                                            | 0                                       | 75,262,091                      | (14,650,000)                                  | (15,231,433)                                          | 23,866                          |       |
| 2002                 | 13,395,718                                                                                                                           | 0                                       | 67,824,612                      | (14,650,000)                                  | (22,034,770)                                          | 24,426                          |       |
| 2003                 | 14,733,270                                                                                                                           | 0                                       | 77,483,994                      | (14,650,000)                                  | (30,910,299)                                          | 9,833                           |       |
| 2004                 | 12,424,830                                                                                                                           | 0                                       | 91,278,920                      | (14,650,000)                                  | (34,155,125)                                          | 7,548                           |       |
| 2005                 | (7,126,781)                                                                                                                          | 0                                       | 99,112,650                      | (14,650,000)                                  | (23,020,957)                                          | 0                               |       |
| 2006                 | 20,564,429                                                                                                                           | 0                                       | 77,707,728                      | (14,650,000)                                  | (16,279,103)                                          | 3,129,000                       |       |
| 2007                 | 23,840,166                                                                                                                           | 0                                       | 81,207,038                      | (14,650,000)                                  | (15,464,828)                                          | 3,129,000                       |       |
| 2008                 | 22,544,551                                                                                                                           | 0                                       | 81,634,854                      | (14,650,000)                                  | (15,646,347)                                          | 3,129,000                       |       |
| 2009                 | 6,810,473                                                                                                                            | 0                                       | 58,176,083                      | (14,650,000)                                  | (9,040,000)                                           | 3,129,000                       |       |
| 2010                 | 3,800,473                                                                                                                            | 0                                       | 57,374,045                      | (14,650,000)                                  | (9,040,000)                                           | 3,129,000                       |       |
| 2011                 | 1,736,473                                                                                                                            | 0                                       | 56,401,919                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2012                 | 396,699                                                                                                                              | 0                                       | 54,930,760                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2013                 | 396,699                                                                                                                              | 0                                       | 57,975,624                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2014                 | 396,699                                                                                                                              | 0                                       | 56,510,610                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2015                 | 396,699                                                                                                                              | 0                                       | 54,566,848                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2016                 | 396,699                                                                                                                              | 0                                       | 58,183,091                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2017                 | 396,699                                                                                                                              | 0                                       | 57,379,283                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2018                 | 396,699                                                                                                                              | 0                                       | 57,808,862                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2019                 | 396,699                                                                                                                              | 0                                       | 56,691,638                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2020                 | 396,699                                                                                                                              | 0                                       | 54,284,698                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2021                 | 396,699                                                                                                                              | 0                                       | 58,353,702                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2022                 | 396,699                                                                                                                              | 0                                       | 57,148,280                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2023                 | 396,699                                                                                                                              | 0                                       | 54,244,306                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2024                 | 396,699                                                                                                                              | 0                                       | 55,164,940                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2025                 | 396,699                                                                                                                              | 0                                       | 59,588,504                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2026                 | 396,699                                                                                                                              | 0                                       | 57,021,041                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2027                 | 396,699                                                                                                                              | 0                                       | 53,832,562                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2028                 | 396,699                                                                                                                              | 0                                       | 54,279,668                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2029                 | 396,699                                                                                                                              | 0                                       | 60,178,188                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2030                 | 396,699                                                                                                                              | 0                                       | 56,025,284                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2031                 | 396,699                                                                                                                              | 0                                       | 54,186,355                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2032                 | 396,699                                                                                                                              | 0                                       | 53,706,811                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2033                 | 396,699                                                                                                                              | 0                                       | 58,612,551                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2034                 | 396,699                                                                                                                              | 0                                       | 55,440,673                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| 2035                 | 396,699                                                                                                                              | 0                                       | 55,972,771                      | (14,650,000)                                  | (9,040,000)                                           | 0                               |       |
| TOTAL                | 1,095,412,955                                                                                                                        | (11,528,320)                            | 2,997,740,079                   | (1,002,213,000)                               | (585,729,633)                                         | 72,730,905                      |       |
|                      |                                                                                                                                      |                                         |                                 |                                               |                                                       | 2,566,412,986                   |       |

- a) Reimbursed through the capital cost component of the Delta Water Charge.  
b) Negotiated settlements as to the magnitude of SWP planning costs from 1952 through 1978.  
c) Reimbursed through the minimum OMP&R component of the Delta Water Charge. Credits for Gianelli power generation are reflected in these net costs.  
d) Revenues credited through the capital cost component of the Delta Water Charge.  
e) Revenues credited through the minimum OMP&R component of the Delta Water Charge.  
f) Under amendments of Articles 22(e) and 22(g), planning and pre-operating costs of additional Project Conservation Facilities incurred through the previous year (2005) reflected in the Delta Water Charge.

**TABLE B-14. Capital Costs of Transportation Facilities Allocated to Each Contractor**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                            |             | SOUTH BAY AREA                         |                                        |                                            |             | CENTRAL COASTAL AREA                   |                                      |             |
|------------------|--------------------------|----------------------------|-------------|----------------------------------------|----------------------------------------|--------------------------------------------|-------------|----------------------------------------|--------------------------------------|-------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA (a) | Total       | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total       | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total       |
|                  | [1]                      | [2]                        | [3]         | [4]                                    | [5]                                    | [6]                                        | [7]         | [8]                                    | [9]                                  | [10]        |
| 1952             | 0                        | 0                          | 0           | 83                                     | 114                                    | 410                                        | 607         | 122                                    | 224                                  | 346         |
| 1953             | 0                        | 0                          | 0           | 323                                    | 479                                    | 1,808                                      | 2,610       | 336                                    | 620                                  | 956         |
| 1954             | 0                        | 0                          | 0           | 819                                    | 1,306                                  | 5,150                                      | 7,275       | 421                                    | 777                                  | 1,198       |
| 1955             | 0                        | 0                          | 0           | 977                                    | 1,570                                  | 6,297                                      | 8,844       | 211                                    | 390                                  | 601         |
| 1956             | 0                        | 0                          | 0           | 8,844                                  | 14,459                                 | 63,816                                     | 87,119      | 227                                    | 418                                  | 645         |
| 1957             | 15,199                   | 11,436                     | 26,635      | 21,564                                 | 35,240                                 | 649,596                                    | 706,400     | 291                                    | 536                                  | 827         |
| 1958             | 33,420                   | 16,591                     | 50,011      | 67,764                                 | 71,717                                 | 733,414                                    | 872,895     | 720                                    | 1,328                                | 2,048       |
| 1959             | 20,697                   | 6,591                      | 27,288      | 154,255                                | 143,730                                | 493,050                                    | 791,035     | 10,636                                 | 69,139                               | 79,775      |
| 1960             | 9,097                    | 8,830                      | 17,927      | 296,492                                | 275,610                                | 1,018,661                                  | 1,590,763   | 15,255                                 | 99,794                               | 115,049     |
| 1961             | 6,950                    | 7,445                      | 14,395      | 853,506                                | 802,675                                | 1,914,709                                  | 3,570,890   | 10,163                                 | 36,681                               | 46,844      |
| 1962             | (194)                    | (926)                      | (1,120)     | 545,123                                | 615,141                                | 1,686,041                                  | 2,846,305   | 17,281                                 | 39,570                               | 56,851      |
| 1963             | 1,319                    | 1,111                      | 2,430       | 657,426                                | 1,281,271                              | 3,243,838                                  | 5,182,535   | 68,821                                 | 140,841                              | 209,662     |
| 1964             | 38,393                   | 35,466                     | 73,859      | 712,650                                | 1,747,783                              | 7,251,800                                  | 9,712,233   | 138,614                                | 282,003                              | 420,617     |
| 1965             | 198,833                  | 62,221                     | 261,054     | 360,779                                | 606,025                                | 3,414,457                                  | 4,381,261   | 250,706                                | 497,152                              | 747,858     |
| 1966             | 461,619                  | 49,917                     | 511,536     | 592,714                                | 592,598                                | 2,245,215                                  | 3,430,527   | 587,951                                | 1,117,486                            | 1,705,437   |
| 1967             | 1,569,498                | 40,379                     | 1,609,877   | 796,995                                | 803,951                                | 2,401,862                                  | 4,002,808   | 936,412                                | 1,762,694                            | 2,699,106   |
| 1968             | 859,613                  | 61,691                     | 921,304     | 736,470                                | 696,075                                | 1,997,924                                  | 3,430,469   | 351,131                                | 675,220                              | 1,026,351   |
| 1969             | 74,388                   | 59,318                     | 133,706     | 269,698                                | 293,275                                | 764,950                                    | 1,327,923   | 76,966                                 | 164,583                              | 241,549     |
| 1970             | 43,361                   | 67,877                     | 111,238     | 58,676                                 | 61,200                                 | 135,569                                    | 255,445     | 47,891                                 | 109,224                              | 157,115     |
| 1971             | 26,763                   | 34,052                     | 60,815      | 12,086                                 | 18,227                                 | 84,089                                     | 114,402     | 28,638                                 | 80,715                               | 109,353     |
| 1972             | 19,643                   | 18,905                     | 38,548      | 12,293                                 | 12,763                                 | 88,666                                     | 109,324     | 19,289                                 | 50,230                               | 69,519      |
| 1973             | 56,510                   | 30,874                     | 87,384      | 10,494                                 | 12,136                                 | 39,380                                     | 62,010      | 23,010                                 | 56,178                               | 79,188      |
| 1974             | 165,830                  | 65,832                     | 231,662     | 15,722                                 | 24,402                                 | 73,119                                     | 113,243     | 25,037                                 | 61,383                               | 86,420      |
| 1975             | 91,824                   | 89,234                     | 181,058     | 16,730                                 | 15,806                                 | 41,394                                     | 73,930      | 14,740                                 | 61,416                               | 76,156      |
| 1976             | 57,765                   | 83,651                     | 141,416     | 34,004                                 | 34,663                                 | 109,610                                    | 178,277     | 33,638                                 | 130,440                              | 164,078     |
| 1977             | 64,167                   | 80,147                     | 144,314     | 46,229                                 | 45,115                                 | 133,375                                    | 224,719     | 108,324                                | 264,720                              | 373,044     |
| 1978             | 69,319                   | 81,717                     | 151,036     | 71,234                                 | 66,008                                 | 174,898                                    | 312,140     | 21,415                                 | 103,822                              | 125,237     |
| 1979             | 191,273                  | 282,907                    | 474,180     | 45,468                                 | 42,943                                 | 110,665                                    | 199,076     | 22,941                                 | 125,669                              | 148,610     |
| 1980             | 264,433                  | 386,006                    | 650,439     | 134,522                                | 124,352                                | 304,614                                    | 563,488     | 103,258                                | 462,895                              | 566,153     |
| 1981             | 227,606                  | 383,086                    | 610,692     | (33,738)                               | (29,856)                               | (65,637)                                   | (129,231)   | (15,416)                               | (135,240)                            | (150,656)   |
| 1982             | 549,164                  | 870,611                    | 1,419,775   | 7,876                                  | 8,321                                  | 27,065                                     | 43,282      | 4,102                                  | (58,882)                             | (54,780)    |
| 1983             | 1,254,900                | 1,433,061                  | 2,687,961   | 138,413                                | 131,515                                | 339,246                                    | 609,174     | 32,196                                 | 110,287                              | 142,483     |
| 1984             | 2,547,878                | 2,750,040                  | 5,297,918   | 152,992                                | 140,971                                | 351,921                                    | 645,884     | 35,448                                 | 107,723                              | 143,171     |
| 1985             | 7,143,123                | 6,443,613                  | 13,586,736  | 19,776                                 | 19,245                                 | 53,491                                     | 92,512      | 17,424                                 | 78,896                               | 96,320      |
| 1986             | 10,565,937               | 16,926,630                 | 27,492,567  | 32,034                                 | 31,581                                 | 88,070                                     | 151,685     | 44,135                                 | 306,452                              | 350,587     |
| 1987             | 7,979,832                | 12,599,507                 | 20,579,339  | 50,153                                 | 48,675                                 | 138,959                                    | 237,787     | 126,995                                | 1,342,116                            | 1,469,111   |
| 1988             | 2,312,909                | 4,343,513                  | 6,656,422   | 116,181                                | 112,294                                | 302,461                                    | 530,936     | 156,473                                | 1,479,545                            | 1,636,018   |
| 1989             | 1,224,538                | 1,553,352                  | 2,777,890   | 108,320                                | 102,804                                | 260,092                                    | 471,216     | 152,173                                | 1,210,940                            | 1,363,113   |
| 1990             | 443,002                  | 824,055                    | 1,267,057   | 224,283                                | 224,188                                | 625,213                                    | 1,073,684   | 222,208                                | 1,559,457                            | 1,781,665   |
| 1991             | 99,848                   | 89,269                     | 189,117     | 413,426                                | 383,368                                | 946,246                                    | 1,743,040   | 298,398                                | 2,184,088                            | 2,482,486   |
| 1992             | 57,045                   | 62,083                     | 119,128     | 182,231                                | 169,968                                | 442,055                                    | 794,254     | 361,210                                | 3,504,755                            | 3,865,965   |
| 1993             | 122,423                  | 128,634                    | 251,057     | 129,344                                | 125,312                                | 342,416                                    | 597,072     | 1,170,649                              | 11,997,954                           | 13,168,603  |
| 1994             | 71,274                   | 83,270                     | 154,544     | 46,042                                 | 58,050                                 | 229,649                                    | 333,741     | 4,260,734                              | 46,401,596                           | 50,662,330  |
| 1995             | 30,605                   | 29,271                     | 59,876      | 97,808                                 | 97,063                                 | 257,484                                    | 452,355     | 12,268,787                             | 155,255,849                          | 167,524,636 |
| 1996             | 20,275                   | 19,069                     | 39,344      | 49,854                                 | 48,056                                 | 127,493                                    | 225,403     | 11,284,548                             | 145,409,409                          | 156,693,957 |
| 1997             | 20,039                   | 107,784                    | 127,823     | 82,598                                 | 78,996                                 | 209,517                                    | 371,111     | 3,184,506                              | 38,158,718                           | 41,343,224  |
| 1998             | 17,309                   | 21,447                     | 38,756      | 27,114                                 | 23,949                                 | 62,646                                     | 113,709     | 883,014                                | 10,563,182                           | 11,446,196  |
| 1999             | 67,542                   | 106,333                    | 173,875     | 74,358                                 | 73,714                                 | 208,601                                    | 356,673     | 929,800                                | 9,604,289                            | 10,534,089  |
| 2000             | 15,937                   | 37,603                     | 53,540      | 27,390                                 | 28,767                                 | 80,015                                     | 136,172     | 489,386                                | 5,542,764                            | 6,032,150   |
| 2001             | 4,469                    | 11,525                     | 15,994      | 140,023                                | 269,536                                | 1,854,608                                  | 2,264,167   | 80,654                                 | 631,609                              | 712,263     |
| 2002             | 17,782                   | 43,709                     | 61,491      | 805,106                                | 1,189,094                              | 5,874,598                                  | 7,868,798   | 71,502                                 | 468,992                              | 540,494     |
| 2003             | 49,553                   | 15,819                     | 65,372      | 1,156,057                              | 1,330,130                              | 4,614,252                                  | 7,100,439   | 15,686                                 | 280,419                              | 296,105     |
| 2004             | 151,772                  | 19,068                     | 170,840     | 1,483,165                              | 1,378,279                              | 6,565,455                                  | 9,426,899   | 15,251                                 | 119,668                              | 134,919     |
| 2005             | 60,245                   | 62,677                     | 122,922     | 1,615,351                              | 1,489,435                              | 4,280,795                                  | 7,385,581   | (14,358)                               | (204,694)                            | (219,052)   |
| 2006             | 1,502,468                | 43,606                     | 1,546,074   | 758,367                                | 696,264                                | 1,673,269                                  | 3,127,900   | 80,728                                 | 598,596                              | 679,324     |
| 2007             | 4,296,903                | 55,039                     | 4,351,942   | 2,220,777                              | 2,034,093                              | 4,863,653                                  | 9,118,523   | 102,289                                | 645,252                              | 747,541     |
| 2008             | 5,025,499                | 51,844                     | 5,077,343   | 1,585,069                              | 1,452,657                              | 3,477,332                                  | 6,515,058   | 95,587                                 | 629,360                              | 724,947     |
| 2009             | 12,904                   | 20,719                     | 33,623      | 29,310                                 | 28,279                                 | 76,145                                     | 133,734     | 57,933                                 | 495,857                              | 553,790     |
| 2010             | 12,904                   | 20,719                     | 33,623      | 29,310                                 | 28,279                                 | 76,145                                     | 133,734     | 57,933                                 | 495,857                              | 553,790     |
| 2011             | 12,904                   | 20,719                     | 33,623      | 29,310                                 | 28,279                                 | 76,145                                     | 133,734     | 57,933                                 | 495,857                              | 553,790     |
| 2012             | 0                        | 0                          | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| 2013             | 0                        | 0                          | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| 2014             | 0                        | 0                          | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| 2015             | 0                        | 0                          | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| TOTAL            | 50,258,309               | 50,758,947                 | 101,017,256 | 18,332,240                             | 20,241,940                             | 67,622,721                                 | 106,196,901 | 39,442,353                             | 445,676,820                          | 485,119,173 |

Note: Allocated capital costs as a result of permanent water transfers under Monterey are not reflected on this Table

- a) Costs from Table B-10 allocated to Solano County Water Agency are reduced herein by \$2,102,700 in 1986 and \$1,823,500 in 1987 under provisions of Amendment No. 10 to its water supply contract.

**TABLE B-14. Capital Costs of Transportation Facilities Allocated to Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                                   |                                               |                                |                                    |                   |                       |                               |                                                   |             |
|------------------|--------------------------------------|---------------------------------------------------|-----------------------------------------------|--------------------------------|------------------------------------|-------------------|-----------------------|-------------------------------|---------------------------------------------------|-------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District (b) | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                                    |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin Water<br>Storage<br>District | Total       |
|                  |                                      |                                                   |                                               | Municipal<br>and<br>Industrial | Municipal<br>and (c)<br>Industrial | Agri-<br>cultural |                       |                               |                                                   |             |
|                  | [11]                                 | [12]                                              | [13]                                          | [14]                           | [15]                               | [16]              | [17]                  | [18]                          | [19]                                              | [20]        |
| 1952             | 389                                  | 20                                                | 58                                            | 938                            | 119                                | 9,129             | 20                    | 12                            | 785                                               | 11,470      |
| 1953             | 1,076                                | 53                                                | 161                                           | 2,887                          | 345                                | 27,383            | 55                    | 33                            | 2,157                                             | 34,150      |
| 1954             | 1,350                                | 68                                                | 201                                           | 3,373                          | 417                                | 32,369            | 69                    | 43                            | 2,718                                             | 40,608      |
| 1955             | 677                                  | 34                                                | 101                                           | 1,497                          | 197                                | 14,721            | 35                    | 23                            | 1,371                                             | 18,656      |
| 1956             | 726                                  | 34                                                | 108                                           | 2,702                          | 273                                | 24,255            | 35                    | 25                            | 1,416                                             | 29,574      |
| 1957             | 932                                  | 38                                                | 139                                           | 6,048                          | 494                                | 49,932            | 39                    | 29                            | 1,707                                             | 59,358      |
| 1958             | 2,308                                | 102                                               | 344                                           | 14,374                         | 1,153                              | 119,049           | 104                   | 61                            | 4,368                                             | 141,863     |
| 1959             | 7,384                                | 364                                               | 2,517                                         | 26,218                         | 2,597                              | 253,891           | 372                   | 381                           | 14,757                                            | 308,481     |
| 1960             | 12,940                               | 630                                               | 3,666                                         | 34,054                         | 4,155                              | 352,166           | 644                   | 498                           | 25,696                                            | 434,449     |
| 1961             | 21,848                               | 1,063                                             | 3,954                                         | 51,407                         | 6,500                              | 538,707           | 1,087                 | 598                           | 43,377                                            | 668,541     |
| 1962             | 49,320                               | 2,410                                             | 7,867                                         | 94,933                         | 13,834                             | 1,017,146         | 2,465                 | 1,879                         | 98,141                                            | 1,287,995   |
| 1963             | 208,757                              | 10,687                                            | 32,172                                        | 364,014                        | 55,715                             | 3,934,636         | 10,932                | 5,990                         | 425,330                                           | 5,048,233   |
| 1964             | 328,286                              | 16,961                                            | 64,890                                        | 600,152                        | 88,904                             | 6,636,279         | 17,350                | 11,942                        | 672,013                                           | 8,436,777   |
| 1965             | 538,215                              | 27,481                                            | 117,996                                       | 1,098,999                      | 152,930                            | 11,999,892        | 28,116                | 21,802                        | 1,095,126                                         | 15,080,557  |
| 1966             | 1,107,757                            | 52,586                                            | 279,172                                       | 2,218,832                      | 339,222                            | 24,857,487        | 53,789                | 38,891                        | 2,173,090                                         | 31,120,826  |
| 1967             | 852,537                              | 39,537                                            | 445,562                                       | 2,012,744                      | 286,990                            | 23,629,026        | 40,444                | 34,775                        | 1,653,429                                         | 28,995,044  |
| 1968             | 198,739                              | 9,739                                             | 166,267                                       | 1,104,132                      | 70,086                             | 11,544,942        | 9,962                 | 12,238                        | 396,075                                           | 13,512,180  |
| 1969             | 94,436                               | 4,793                                             | 35,473                                        | 616,516                        | 27,216                             | 6,416,147         | 4,903                 | 7,302                         | 191,574                                           | 7,398,360   |
| 1970             | 54,344                               | 2,720                                             | 21,686                                        | 414,659                        | 15,520                             | 4,145,046         | 2,782                 | 3,999                         | 109,470                                           | 4,770,226   |
| 1971             | 25,462                               | 1,291                                             | 12,094                                        | 190,552                        | 7,114                              | 1,622,274         | 1,320                 | 540                           | 51,618                                            | 1,912,265   |
| 1972             | 11,589                               | 589                                               | 8,354                                         | 82,886                         | 3,409                              | 723,623           | 602                   | 343                           | 23,526                                            | 854,921     |
| 1973             | 6,657                                | 335                                               | 10,201                                        | 39,973                         | 1,980                              | 458,527           | 343                   | 221                           | 13,448                                            | 531,685     |
| 1974             | 9,478                                | 469                                               | 11,044                                        | 45,420                         | 2,766                              | 483,866           | 479                   | 326                           | 18,979                                            | 572,827     |
| 1975             | 13,329                               | 677                                               | 5,246                                         | 36,467                         | 3,710                              | 382,743           | 692                   | 425                           | 27,048                                            | 470,337     |
| 1976             | 17,506                               | 837                                               | 12,615                                        | 53,085                         | 5,621                              | 654,026           | 856                   | 1,152                         | 34,455                                            | 780,153     |
| 1977             | 9,672                                | 436                                               | 47,790                                        | 36,478                         | 3,753                              | 886,672           | 446                   | 494                           | 18,497                                            | 1,004,238   |
| 1978             | 23,499                               | (30,406)                                          | 6,178                                         | 54,219                         | 6,579                              | 575,169           | 1,209                 | 1,402                         | 47,446                                            | 685,295     |
| 1979             | 25,051                               | 1,295                                             | 5,664                                         | 53,866                         | 6,610                              | 559,746           | 1,325                 | 1,862                         | 51,293                                            | 706,712     |
| 1980             | 144,980                              | (4,617)                                           | 31,160                                        | 321,890                        | 38,126                             | 3,211,810         | 7,682                 | 7,144                         | 297,215                                           | 4,055,390   |
| 1981             | (5,427)                              | (15,464)                                          | 200                                           | (44,773)                       | (1,223)                            | (385,275)         | (296)                 | 1,752                         | (11,324)                                          | (461,830)   |
| 1982             | 49,916                               | 2,584                                             | 6,600                                         | 83,283                         | 13,142                             | 654,692           | 2,638                 | 1,252                         | 102,287                                           | 916,394     |
| 1983             | 52,429                               | (35,295)                                          | 12,125                                        | 110,465                        | 13,872                             | 1,073,500         | 2,769                 | 1,327                         | 107,337                                           | 1,338,529   |
| 1984             | 86,345                               | 4,474                                             | 14,303                                        | 154,799                        | 22,764                             | 1,617,225         | 4,572                 | 2,678                         | 177,020                                           | 2,084,180   |
| 1985             | 25,435                               | 1,311                                             | 5,649                                         | 47,055                         | 6,766                              | 484,485           | 1,341                 | 1,176                         | 52,013                                            | 625,231     |
| 1986             | 38,309                               | (41,067)                                          | 9,862                                         | 71,661                         | 10,320                             | 796,097           | 2,009                 | 778                           | 78,142                                            | 966,111     |
| 1987             | 28,769                               | 1,476                                             | 7,004                                         | 55,537                         | 7,969                              | 616,845           | 1,509                 | 1,491                         | 58,679                                            | 779,279     |
| 1988             | 52,329                               | 2,831                                             | 17,078                                        | 70,572                         | 12,049                             | 909,046           | 2,894                 | 4,620                         | 109,713                                           | 1,181,137   |
| 1989             | 156,099                              | 8,019                                             | 27,551                                        | 352,103                        | 42,943                             | 3,834,481         | 8,201                 | 12,134                        | 318,604                                           | 4,760,135   |
| 1990             | 292,361                              | 15,142                                            | 50,360                                        | 553,394                        | 87,199                             | 6,094,021         | 15,487                | 22,729                        | 599,233                                           | 7,729,926   |
| 1991             | 349,413                              | 18,103                                            | 60,419                                        | 580,572                        | 91,765                             | 6,447,565         | 18,515                | 23,486                        | 716,292                                           | 8,306,130   |
| 1992             | 125,891                              | 6,439                                             | 28,019                                        | 241,559                        | 34,559                             | 2,711,639         | 6,585                 | 10,883                        | 256,370                                           | 3,421,944   |
| 1993             | 86,113                               | 4,375                                             | 30,245                                        | 174,630                        | 23,840                             | 2,059,168         | 4,474                 | 4,698                         | 174,772                                           | 2,562,315   |
| 1994             | 64,762                               | 3,323                                             | 23,894                                        | 124,518                        | 17,633                             | 1,488,418         | 3,398                 | 2,173                         | 132,095                                           | 1,860,214   |
| 1995             | 82,969                               | (1,000)                                           | 72,734                                        | 167,698                        | 24,390                             | 2,472,332         | 4,355                 | 2,824                         | 169,318                                           | 2,995,620   |
| 1996             | 27,611                               | (61,913)                                          | 51,990                                        | 68,870                         | 8,812                              | 1,233,548         | 1,437                 | 1,590                         | 56,092                                            | 1,388,037   |
| 1997             | 136,503                              | 7,041                                             | 48,721                                        | 241,400                        | 36,417                             | 2,951,687         | 7,195                 | 3,706                         | 279,205                                           | 3,711,875   |
| 1998             | 70,585                               | (121,012)                                         | 23,037                                        | 122,493                        | 18,582                             | 1,470,316         | 3,734                 | 1,278                         | 144,651                                           | 1,733,664   |
| 1999             | 82,290                               | 4,249                                             | 26,824                                        | 144,882                        | 21,945                             | 1,736,415         | 4,343                 | 3,856                         | 168,404                                           | 2,193,208   |
| 2000             | 21,067                               | 1,072                                             | 9,811                                         | 45,646                         | 6,006                              | 547,273           | 1,094                 | (1,081)                       | 42,783                                            | 673,671     |
| 2001             | 17,632                               | 900                                               | 7,790                                         | 35,687                         | 5,017                              | 428,254           | 920                   | 777                           | 35,867                                            | 532,844     |
| 2002             | 74,060                               | 3,804                                             | 15,942                                        | 132,582                        | 20,004                             | 1,494,264         | 3,891                 | 724                           | 151,158                                           | 1,896,429   |
| 2003             | (51,492)                             | (2,691)                                           | (5,668)                                       | (76,971)                       | (13,187)                           | (832,512)         | (2,752)               | 330                           | (106,022)                                         | (1,090,965) |
| 2004             | 6,953                                | 358                                               | 2,362                                         | 15,272                         | 1,853                              | 164,896           | 367                   | 1,482                         | 14,211                                            | 207,754     |
| 2005             | 25,401                               | 1,319                                             | 5,257                                         | 45,551                         | 6,627                              | 465,754           | 1,348                 | 399                           | 52,133                                            | 603,789     |
| 2006             | 45,518                               | 2,343                                             | 14,745                                        | 88,610                         | 12,259                             | 977,008           | 2,397                 | 1,014                         | 93,003                                            | 1,236,897   |
| 2007             | 96,650                               | 4,989                                             | 24,340                                        | 174,767                        | 25,731                             | 1,931,510         | 5,104                 | 2,094                         | 197,755                                           | 2,462,940   |
| 2008             | 72,196                               | 3,716                                             | 21,210                                        | 136,295                        | 19,388                             | 1,513,050         | 3,802                 | 2,022                         | 147,511                                           | 1,919,190   |
| 2009             | 12,075                               | 616                                               | 7,350                                         | 25,027                         | 3,391                              | 328,279           | 630                   | 508                           | 24,557                                            | 402,433     |
| 2010             | 12,075                               | 616                                               | 7,350                                         | 25,027                         | 3,391                              | 328,279           | 630                   | 508                           | 24,557                                            | 402,433     |
| 2011             | 12,075                               | 616                                               | 7,350                                         | 25,027                         | 3,391                              | 328,279           | 630                   | 508                           | 24,557                                            | 402,433     |
| 2012             | 0                                    | 0                                                 | 0                                             | 0                              | 0                                  | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 2013             | 0                                    | 0                                                 | 0                                             | 0                              | 0                                  | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 2014             | 0                                    | 0                                                 | 0                                             | 0                              | 0                                  | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 2015             | 0                                    | 0                                                 | 0                                             | 0                              | 0                                  | 0                 | 0                     | 0                             | 0                                                 | 0           |
| TOTAL            | 5,916,156                            | (38,500)                                          | 1,967,134                                     | 13,576,553                     | 1,733,950                          | 151,101,198       | 301,378               | 268,146                       | 11,887,098                                        | 186,713,113 |

b) Costs from Table B-10 allocated to Empire West Side Irrigation District are reduced herein by \$31,588 in 1978; \$12,129 in 1980; \$15,173 in 1981; \$38,004 in 1983; \$43,033 in 1986; \$5,261 in 1995; \$63,318 in 1996 and \$124,667 in 1998 in accordance with letters of agreement with the district.

c) Costs related to maximum annual entitlement of 15,000 acre-feet under Amendment No. 18 of the water supply contract with Kern County Water Agency.

**TABLE B-14. Capital Costs of Transportation Facilities Allocated to Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                       |                                          |                                                    |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|---------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency (d | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [21]                                                | [22]                                  | [23]                                     | [24]                                               | [25]                      | [26]                                          | [27]                      | [28]                          | [29]                                                       | [30]                                                    |
| 1952             | 3,158                                               | 1,042                                 | 850                                      | 254                                                | 1,402                     | 70                                            | 1,695                     | 418                           | 6,079                                                      | 1,550                                                   |
| 1953             | 10,026                                              | 3,327                                 | 2,668                                    | 799                                                | 4,401                     | 222                                           | 5,318                     | 1,328                         | 19,058                                                     | 4,852                                                   |
| 1954             | 12,742                                              | 4,193                                 | 3,465                                    | 1,031                                              | 5,714                     | 285                                           | 6,908                     | 1,691                         | 24,608                                                     | 6,290                                                   |
| 1955             | 5,411                                               | 1,881                                 | 1,374                                    | 401                                                | 2,267                     | 115                                           | 2,756                     | 715                           | 9,229                                                      | 2,377                                                   |
| 1956             | 9,775                                               | 3,590                                 | 2,196                                    | 612                                                | 3,622                     | 191                                           | 4,449                     | 1,267                         | 13,138                                                     | 3,438                                                   |
| 1957             | 26,306                                              | 9,255                                 | 6,343                                    | 1,816                                              | 10,461                    | 540                                           | 12,767                    | 3,450                         | 40,646                                                     | 10,534                                                  |
| 1958             | 49,204                                              | 17,599                                | 11,581                                   | 3,290                                              | 19,099                    | 991                                           | 23,360                    | 6,414                         | 72,708                                                     | 18,898                                                  |
| 1959             | 70,247                                              | 29,740                                | 15,869                                   | 4,616                                              | 26,171                    | 1,347                                         | 31,759                    | 9,030                         | 98,596                                                     | 25,519                                                  |
| 1960             | 84,552                                              | 38,760                                | 22,068                                   | 6,797                                              | 36,395                    | 1,547                                         | 43,260                    | 10,772                        | 147,170                                                    | 37,469                                                  |
| 1961             | 126,542                                             | 54,262                                | 34,613                                   | 12,530                                             | 57,086                    | 2,245                                         | 63,709                    | 16,437                        | 236,164                                                    | 57,707                                                  |
| 1962             | 198,558                                             | 85,352                                | 43,719                                   | 13,861                                             | 72,102                    | 3,344                                         | 84,709                    | 24,943                        | 253,435                                                    | 64,330                                                  |
| 1963             | 580,138                                             | 255,252                               | 116,797                                  | 33,149                                             | 192,624                   | 9,828                                         | 234,926                   | 73,256                        | 610,277                                                    | 160,624                                                 |
| 1964             | 1,094,365                                           | 501,858                               | 209,462                                  | 55,445                                             | 345,446                   | 18,442                                        | 429,605                   | 137,769                       | 1,026,066                                                  | 276,118                                                 |
| 1965             | 1,908,076                                           | 947,523                               | 385,533                                  | 103,757                                            | 635,825                   | 32,819                                        | 786,986                   | 244,587                       | 1,913,090                                                  | 512,862                                                 |
| 1966             | 3,960,302                                           | 2,150,972                             | 812,655                                  | 215,858                                            | 1,340,235                 | 69,325                                        | 1,664,584                 | 517,269                       | 3,943,586                                                  | 1,062,417                                               |
| 1967             | 4,976,538                                           | 4,100,531                             | 1,077,422                                | 296,069                                            | 1,776,892                 | 88,301                                        | 2,182,240                 | 653,250                       | 5,821,681                                                  | 1,550,239                                               |
| 1968             | 5,924,474                                           | 3,998,942                             | 1,350,742                                | 368,156                                            | 2,227,646                 | 107,350                                       | 2,738,009                 | 783,940                       | 7,982,824                                                  | 2,122,940                                               |
| 1969             | 5,822,708                                           | 3,079,426                             | 1,690,259                                | 539,851                                            | 2,787,631                 | 121,303                                       | 3,256,507                 | 865,455                       | 10,898,185                                                 | 2,769,647                                               |
| 1970             | 5,032,959                                           | 3,277,778                             | 2,050,788                                | 695,345                                            | 3,382,251                 | 106,381                                       | 3,872,367                 | 736,775                       | 13,795,809                                                 | 3,457,109                                               |
| 1971             | 2,577,507                                           | 2,146,954                             | 1,071,523                                | 338,581                                            | 1,767,179                 | 48,337                                        | 2,087,223                 | 347,057                       | 8,137,053                                                  | 1,987,120                                               |
| 1972             | 973,436                                             | 283,257                               | 331,759                                  | 92,079                                             | 547,138                   | 19,134                                        | 668,550                   | 134,360                       | 2,691,137                                                  | 697,957                                                 |
| 1973             | 354,407                                             | 914,303                               | 158,579                                  | 82,223                                             | 261,557                   | 6,304                                         | 238,094                   | 46,102                        | 1,760,570                                                  | 403,582                                                 |
| 1974             | 451,450                                             | 280,861                               | 259,175                                  | 74,113                                             | 427,433                   | 8,143                                         | 518,453                   | 59,145                        | 1,617,394                                                  | 425,927                                                 |
| 1975             | 253,438                                             | 246,492                               | 193,632                                  | 52,821                                             | 319,337                   | 4,954                                         | 392,110                   | 33,995                        | 1,533,664                                                  | 407,913                                                 |
| 1976             | 237,539                                             | 255,238                               | 136,751                                  | 37,235                                             | 225,529                   | 4,245                                         | 277,807                   | 31,002                        | 962,280                                                    | 255,901                                                 |
| 1977             | 199,554                                             | 371,469                               | 91,384                                   | 25,858                                             | 150,711                   | 3,757                                         | 183,609                   | 26,834                        | 591,445                                                    | 155,537                                                 |
| 1978             | 302,111                                             | 470,176                               | 78,573                                   | 22,226                                             | 129,584                   | 5,233                                         | 157,815                   | 38,654                        | 428,989                                                    | 111,769                                                 |
| 1979             | 357,678                                             | 938,985                               | 81,807                                   | 21,795                                             | 134,915                   | 5,965                                         | 166,931                   | 44,410                        | 403,569                                                    | 108,408                                                 |
| 1980             | 1,867,517                                           | 1,777,294                             | 423,755                                  | 113,166                                            | 698,855                   | 32,435                                        | 864,104                   | 240,899                       | 2,040,757                                                  | 548,085                                                 |
| 1981             | (158,728)                                           | 610,795                               | (47,102)                                 | (8,865)                                            | (77,678)                  | (2,576)                                       | (102,568)                 | (19,588)                      | (143,875)                                                  | (43,557)                                                |
| 1982             | 1,557,934                                           | 861,928                               | 298,770                                  | 78,903                                             | 492,728                   | 26,237                                        | 613,587                   | 196,672                       | 1,421,407                                                  | 388,261                                                 |
| 1983             | 2,062,512                                           | 521,349                               | 396,033                                  | 115,678                                            | 653,134                   | 34,699                                        | 803,945                   | 259,939                       | 2,126,313                                                  | 581,672                                                 |
| 1984             | 1,518,361                                           | 295,783                               | 297,559                                  | 85,097                                             | 490,731                   | 27,272                                        | 606,124                   | 188,562                       | 1,546,628                                                  | 423,408                                                 |
| 1985             | 896,226                                             | 158,810                               | 217,115                                  | 62,532                                             | 358,064                   | 13,104                                        | 441,299                   | 107,533                       | 1,115,498                                                  | 304,903                                                 |
| 1986             | 841,555                                             | 104,860                               | 221,194                                  | 58,152                                             | 364,790                   | 9,038                                         | 454,702                   | 93,309                        | 1,048,625                                                  | 286,302                                                 |
| 1987             | 333,052                                             | 105,625                               | 166,099                                  | 43,992                                             | 273,928                   | 5,566                                         | 340,485                   | 40,716                        | 783,725                                                    | 213,202                                                 |
| 1988             | 259,234                                             | 174,155                               | 65,831                                   | 22,723                                             | 108,570                   | 3,384                                         | 128,339                   | 26,743                        | 429,498                                                    | 113,644                                                 |
| 1989             | 1,045,999                                           | 434,394                               | 323,138                                  | 97,036                                             | 532,920                   | 16,777                                        | 649,616                   | 125,344                       | 1,375,722                                                  | 372,048                                                 |
| 1990             | 678,053                                             | 374,313                               | 332,566                                  | 97,789                                             | 548,468                   | 7,335                                         | 672,344                   | 67,179                        | 1,509,745                                                  | 409,710                                                 |
| 1991             | 831,687                                             | 401,961                               | 367,196                                  | 120,925                                            | 605,579                   | 11,966                                        | 733,443                   | 92,625                        | 1,979,364                                                  | 540,210                                                 |
| 1992             | 633,272                                             | 356,952                               | 270,826                                  | 131,328                                            | 446,647                   | 9,556                                         | 501,634                   | 76,760                        | 2,093,387                                                  | 573,386                                                 |
| 1993             | 634,283                                             | 332,089                               | 222,347                                  | 171,095                                            | 366,700                   | 10,194                                        | 353,470                   | 73,955                        | 3,848,084                                                  | 1,046,752                                               |
| 1994             | 467,409                                             | 165,607                               | 132,599                                  | 93,839                                             | 218,685                   | 7,255                                         | 218,494                   | 53,209                        | 2,347,599                                                  | 637,733                                                 |
| 1995             | 459,990                                             | 293,308                               | 132,690                                  | 78,390                                             | 218,835                   | 7,436                                         | 232,377                   | 54,544                        | 1,959,986                                                  | 530,656                                                 |
| 1996             | 299,764                                             | 206,742                               | 110,520                                  | 44,965                                             | 182,270                   | 4,885                                         | 211,872                   | 35,808                        | 4,004,066                                                  | 972,829                                                 |
| 1997             | 438,898                                             | 249,699                               | 103,382                                  | 24,640                                             | 170,497                   | 7,397                                         | 214,534                   | 54,452                        | 2,819,566                                                  | 397,103                                                 |
| 1998             | 231,375                                             | 201,318                               | 61,853                                   | 40,974                                             | 102,009                   | 3,938                                         | 104,688                   | 29,174                        | 3,547,590                                                  | 302,471                                                 |
| 1999             | 272,187                                             | 177,666                               | 88,999                                   | 38,450                                             | 146,777                   | 4,878                                         | 169,400                   | 35,895                        | 5,453,212                                                  | 228,739                                                 |
| 2000             | 138,739                                             | 77,710                                | 54,773                                   | 23,902                                             | 90,332                    | 2,660                                         | 103,134                   | 19,109                        | 13,635,919                                                 | 171,058                                                 |
| 2001             | 128,753                                             | 43,584                                | 50,665                                   | 15,634                                             | 83,557                    | 2,951                                         | 101,850                   | 20,674                        | 19,270,173                                                 | 95,921                                                  |
| 2002             | 165,050                                             | 106,305                               | 34,254                                   | 11,387                                             | 56,492                    | 2,415                                         | 67,803                    | 18,275                        | 9,602,339                                                  | 126,093                                                 |
| 2003             | (50,046)                                            | (14,093)                              | 2,633                                    | 2,112                                              | 4,342                     | (883)                                         | 3,341                     | (6,547)                       | 3,747,303                                                  | 26,514                                                  |
| 2004             | 57,468                                              | 36,689                                | 18,594                                   | 5,192                                              | 30,665                    | 1,009                                         | 37,809                    | 7,426                         | 2,043,583                                                  | 36,088                                                  |
| 2005             | 165,714                                             | 98,956                                | 31,766                                   | 10,127                                             | 52,389                    | 2,773                                         | 62,093                    | 20,813                        | 920,041                                                    | 50,953                                                  |
| 2006             | 324,880                                             | 248,999                               | 110,655                                  | 44,935                                             | 182,498                   | 5,609                                         | 202,678                   | 41,612                        | 1,952,465                                                  | 215,406                                                 |
| 2007             | 468,605                                             | 470,067                               | 220,171                                  | 72,533                                             | 363,110                   | 8,048                                         | 429,711                   | 59,815                        | 1,345,304                                                  | 353,266                                                 |
| 2008             | 434,273                                             | 584,819                               | 179,499                                  | 47,821                                             | 296,029                   | 7,482                                         | 368,180                   | 55,538                        | 910,903                                                    | 247,820                                                 |
| 2009             | 69,451                                              | 184,392                               | 22,065                                   | 6,526                                              | 36,389                    | 1,291                                         | 44,381                    | 9,336                         | 148,784                                                    | 39,713                                                  |
| 2010             | 69,451                                              | 60,225                                | 22,065                                   | 6,526                                              | 36,389                    | 1,291                                         | 44,381                    | 9,336                         | 148,784                                                    | 39,713                                                  |
| 2011             | 69,451                                              | 51,535                                | 22,065                                   | 6,526                                              | 36,389                    | 1,291                                         | 44,381                    | 9,336                         | 148,784                                                    | 39,713                                                  |
| 2012             | 0                                                   | 0                                     | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2013             | 0                                                   | 0                                     | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2014             | 0                                                   | 0                                     | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2015             | 0                                                   | 0                                     | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| TOTAL            | 52,815,570                                          | 34,222,854                            | 15,196,162                               | 4,864,598                                          | 25,061,743                | 947,431                                       | 29,858,137                | 6,948,778                     | 160,219,728                                                | 26,968,849                                              |

d) Costs from Table B-10 allocated to Castaic Lake Water Agency are reduced herein by \$14,088 in 1978 in accordance with a letter of agreement with the district.

**TABLE B-14. Capital Costs of Transportation Facilities Allocated to Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)       |                                                                        |                                                   |               | FEATHER RIVER AREA         |                       |                            |         | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|--------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------|---------------|----------------------------|-----------------------|----------------------------|---------|-------------------------------------------|----------------|
|                  | San<br>Gorgonio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California (e) | Ventura<br>County<br>Flood<br>Control<br>District | Total         | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total   |                                           |                |
|                  | [31]                                       | [32]                                                                   | [33]                                              | [34]          | [35]                       | [36]                  | [37]                       | [38]    | [39]                                      | [40]           |
| 1952             | 962                                        | 69,020                                                                 | 370                                               | 86,870        | 0                          | 0                     | 0                          | 0       | 59                                        | 99,352         |
| 1953             | 3,011                                      | 217,634                                                                | 1,187                                             | 273,831       | 0                          | 0                     | 0                          | 0       | 264                                       | 311,811        |
| 1954             | 3,904                                      | 279,967                                                                | 1,496                                             | 352,294       | 0                          | 0                     | 0                          | 0       | 766                                       | 402,141        |
| 1955             | 1,474                                      | 111,602                                                                | 670                                               | 140,272       | 0                          | 0                     | 0                          | 0       | 969                                       | 169,342        |
| 1956             | 2,127                                      | 179,335                                                                | 1,299                                             | 225,039       | 0                          | 0                     | 0                          | 0       | 9,172                                     | 351,549        |
| 1957             | 6,526                                      | 516,050                                                                | 3,367                                             | 648,061       | 0                          | 0                     | 0                          | 0       | 23,172                                    | 1,464,453      |
| 1958             | 11,701                                     | 945,684                                                                | 6,390                                             | 1,186,919     | 0                          | 0                     | 2                          | 2       | 32,888                                    | 2,286,626      |
| 1959             | 15,815                                     | 1,364,298                                                              | 9,894                                             | 1,702,901     | 0                          | 0                     | 14                         | 14      | 57,918                                    | 2,967,412      |
| 1960             | 23,307                                     | 1,914,521                                                              | 12,798                                            | 2,379,416     | 0                          | 0                     | 28                         | 28      | 123,202                                   | 4,660,834      |
| 1961             | 36,153                                     | 3,212,125                                                              | 18,770                                            | 3,928,343     | 0                          | 0                     | 10                         | 10      | 316,220                                   | 8,545,243      |
| 1962             | 40,012                                     | 3,543,471                                                              | 29,069                                            | 4,456,905     | 0                          | 0                     | 32                         | 32      | 228,202                                   | 8,875,170      |
| 1963             | 99,266                                     | 11,185,928                                                             | 86,807                                            | 13,638,872    | 0                          | 0                     | 51                         | 51      | 528,496                                   | 24,610,279     |
| 1964             | 170,012                                    | 18,065,455                                                             | 164,709                                           | 22,494,752    | 0                          | 0                     | 7,791                      | 7,791   | 590,034                                   | 41,736,063     |
| 1965             | 316,082                                    | 33,763,577                                                             | 307,475                                           | 41,858,192    | 0                          | 0                     | 3,139                      | 3,139   | 332,680                                   | 62,664,741     |
| 1966             | 654,194                                    | 74,485,027                                                             | 681,898                                           | 91,558,322    | 0                          | 0                     | (48)                       | (48)    | 783,728                                   | 129,110,328    |
| 1967             | 958,406                                    | 130,589,417                                                            | 1,279,076                                         | 155,360,062   | 0                          | 0                     | 47                         | 47      | 1,479,421                                 | 194,146,365    |
| 1968             | 1,314,841                                  | 147,502,290                                                            | 1,360,687                                         | 177,782,841   | 0                          | 0                     | 51,573                     | 51,573  | 1,254,192                                 | 197,978,910    |
| 1969             | 1,726,891                                  | 140,096,646                                                            | 1,085,026                                         | 174,739,535   | 0                          | 0                     | 234,232                    | 234,232 | 398,183                                   | 184,473,488    |
| 1970             | 2,160,122                                  | 161,983,078                                                            | 1,147,609                                         | 201,698,371   | 0                          | 0                     | 16,227                     | 16,227  | 74,028                                    | 207,082,650    |
| 1971             | 1,237,573                                  | 133,903,316                                                            | 738,822                                           | 156,388,245   | 0                          | 0                     | 27,204                     | 27,204  | 12,457                                    | 158,624,741    |
| 1972             | 434,507                                    | 43,931,880                                                             | 66,878                                            | 50,872,072    | 0                          | 0                     | 9                          | 9       | 13,182                                    | 51,936,917     |
| 1973             | 256,711                                    | 39,723,010                                                             | 290,020                                           | 44,495,462    | 0                          | 0                     | 25                         | 25      | 8,099                                     | 45,263,853     |
| 1974             | 264,349                                    | 18,896,593                                                             | 86,362                                            | 23,369,398    | 0                          | 0                     | 45                         | 45      | 28,570                                    | 24,402,165     |
| 1975             | 253,838                                    | 16,732,939                                                             | 83,975                                            | 20,509,108    | 0                          | 0                     | 21                         | 21      | 8,226                                     | 21,318,836     |
| 1976             | 158,850                                    | 13,545,451                                                             | 84,623                                            | 16,212,451    | 0                          | 0                     | 51                         | 51      | 16,486                                    | 17,492,912     |
| 1977             | 96,517                                     | 11,769,352                                                             | 110,833                                           | 13,776,860    | 0                          | 0                     | 28                         | 28      | 21,181                                    | 15,544,384     |
| 1978             | 69,152                                     | 15,781,696                                                             | 174,876                                           | 17,770,854    | 0                          | 0                     | 38                         | 38      | 28,876                                    | 19,073,476     |
| 1979             | 66,847                                     | 27,627,424                                                             | 343,361                                           | 30,302,095    | 0                          | 0                     | 23                         | 23      | 26,668                                    | 31,857,364     |
| 1980             | 337,811                                    | 59,493,774                                                             | 641,586                                           | 69,080,038    | 0                          | 0                     | 26                         | 26      | 59,169                                    | 74,974,703     |
| 1981             | (26,356)                                   | 15,661,179                                                             | 224,257                                           | 15,865,338    | 0                          | 0                     | 34                         | 34      | (6,746)                                   | 15,727,601     |
| 1982             | 238,792                                    | 30,873,857                                                             | 316,107                                           | 37,365,183    | 0                          | 0                     | 11                         | 11      | 16,086                                    | 39,705,931     |
| 1983             | 357,812                                    | 25,056,047                                                             | 187,121                                           | 33,156,254    | 0                          | 0                     | 19                         | 19      | 72,225                                    | 38,006,645     |
| 1984             | 260,327                                    | 16,317,441                                                             | 103,160                                           | 22,160,453    | 0                          | 0                     | 26                         | 26      | 83,252                                    | 30,414,884     |
| 1985             | 187,454                                    | 10,236,155                                                             | 56,162                                            | 14,154,855    | 0                          | 0                     | 29                         | 29      | 16,338                                    | 28,572,021     |
| 1986             | 176,057                                    | 8,365,310                                                              | 34,777                                            | 12,058,671    | 0                          | 0                     | 31                         | 31      | 16,248                                    | 41,035,900     |
| 1987             | 131,163                                    | 6,955,356                                                              | 36,142                                            | 9,429,051     | 0                          | 0                     | 32                         | 32      | 29,062                                    | 32,523,661     |
| 1988             | 70,260                                     | 6,626,545                                                              | 57,117                                            | 8,086,043     | 0                          | 0                     | 55                         | 55      | 50,083                                    | 18,140,689     |
| 1989             | 227,772                                    | 18,531,680                                                             | 153,200                                           | 23,885,646    | 0                          | 0                     | 44                         | 44      | 43,324                                    | 33,301,368     |
| 1990             | 251,185                                    | 17,430,869                                                             | 125,376                                           | 22,504,932    | 0                          | 0                     | 63                         | 63      | 96,419                                    | 34,453,746     |
| 1991             | 331,235                                    | 20,792,168                                                             | 132,558                                           | 26,940,917    | 0                          | 0                     | 54                         | 54      | 149,922                                   | 39,811,666     |
| 1992             | 351,492                                    | 21,196,762                                                             | 116,999                                           | 26,759,001    | 0                          | 0                     | 42                         | 42      | 80,900                                    | 35,041,234     |
| 1993             | 646,980                                    | 29,471,748                                                             | 105,693                                           | 37,283,390    | 0                          | 0                     | 30                         | 30      | 59,324                                    | 53,921,791     |
| 1994             | 394,936                                    | 16,392,019                                                             | 50,941                                            | 21,180,325    | 0                          | 0                     | 14                         | 14      | 34,208                                    | 74,225,376     |
| 1995             | 331,399                                    | 16,078,395                                                             | 72,214                                            | 20,450,220    | 0                          | 0                     | 3                          | 3       | 42,395                                    | 191,525,105    |
| 1996             | 1,100,219                                  | 23,237,696                                                             | 49,282                                            | 30,460,918    | 0                          | 0                     | 0                          | 0       | 21,388                                    | 188,829,047    |
| 1997             | 1,987,864                                  | 13,530,777                                                             | 72,335                                            | 20,071,144    | 0                          | 0                     | 3                          | 3       | 34,976                                    | 65,660,156     |
| 1998             | 3,351,560                                  | 11,234,515                                                             | 65,270                                            | 19,276,735    | 0                          | 0                     | 7                          | 7       | 11,162                                    | 32,620,229     |
| 1999             | 6,135,848                                  | 8,999,050                                                              | 55,105                                            | 21,806,206    | 0                          | 0                     | 2                          | 2       | 34,683                                    | 35,098,736     |
| 2000             | 17,011,956                                 | 5,386,696                                                              | 23,952                                            | 36,739,940    | 0                          | 0                     | 0                          | 0       | 16,879                                    | 43,652,352     |
| 2001             | 24,660,997                                 | 2,944,670                                                              | 12,652                                            | 47,432,081    | 0                          | 0                     | 0                          | 0       | 67,794                                    | 51,025,143     |
| 2002             | 11,951,414                                 | 5,253,452                                                              | 34,427                                            | 27,429,706    | 0                          | 0                     | 0                          | 0       | 380,408                                   | 38,177,326     |
| 2003             | 4,685,945                                  | 3,859,509                                                              | (5,032)                                           | 12,255,098    | 0                          | 0                     | 0                          | 0       | 589,637                                   | 19,215,686     |
| 2004             | 2,390,732                                  | 4,170,999                                                              | 12,482                                            | 8,848,736     | 0                          | 0                     | 0                          | 0       | 531,172                                   | 19,320,320     |
| 2005             | 837,616                                    | 6,245,799                                                              | 33,769                                            | 8,532,809     | 0                          | 0                     | 0                          | 0       | 540,659                                   | 16,966,708     |
| 2006             | 1,504,446                                  | 13,869,050                                                             | 85,407                                            | 18,788,640    | 0                          | 0                     | 0                          | 0       | 270,193                                   | 25,649,028     |
| 2007             | 218,782                                    | 33,048,396                                                             | 153,495                                           | 37,211,303    | 0                          | 0                     | 0                          | 0       | 760,434                                   | 54,652,683     |
| 2008             | 152,630                                    | 53,174,437                                                             | 180,654                                           | 56,640,085    | 0                          | 0                     | 0                          | 0       | 548,129                                   | 71,424,752     |
| 2009             | 24,594                                     | 5,579,851                                                              | 64,527                                            | 6,231,300     | 0                          | 0                     | 0                          | 0       | 18,676                                    | 7,373,556      |
| 2010             | 24,594                                     | 2,246,591                                                              | 18,709                                            | 2,728,055     | 0                          | 0                     | 0                          | 0       | 18,676                                    | 3,870,311      |
| 2011             | 24,594                                     | 2,013,308                                                              | 15,502                                            | 2,482,875     | 0                          | 0                     | 0                          | 0       | 18,676                                    | 3,625,131      |
| 2012             | 0                                          | 0                                                                      | 0                                                 | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| 2013             | 0                                          | 0                                                                      | 0                                                 | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| 2014             | 0                                          | 0                                                                      | 0                                                 | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| 2015             | 0                                          | 0                                                                      | 0                                                 | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| TOTAL            | 90,715,261                                 | 1,566,220,887                                                          | 11,464,293                                        | 2,025,504,291 | 0                          | 0                     | 341,067                    | 341,067 | 11,103,090                                | 2,915,994,891  |

e) Costs from Table B-10 allocated to MWDSC are reduced herein by \$16,425,374 in 1972 under provisions of Amendment No. 7 to its water contract.



**TABLE B-15. Capital Cost Component of Transportation Charge for Each Contractor** <sup>a b c</sup>

| Calendar<br><br>Year | NORTH BAY AREA           |                        |             | SOUTH BAY AREA                         |                                        |                                            |             | CENTRAL COASTAL AREA                   |                                      |               |
|----------------------|--------------------------|------------------------|-------------|----------------------------------------|----------------------------------------|--------------------------------------------|-------------|----------------------------------------|--------------------------------------|---------------|
|                      | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total       | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total       | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total         |
|                      | [1]                      | [2]                    | [3]         | [4]                                    | [5]                                    | [6]                                        | [7]         | [8]                                    | [9]                                  | [10]          |
| 1961                 | 0                        | 0                      | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0             |
| 1962                 | 0                        | 0                      | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0             |
| 1963                 | 0                        | 0                      | 0           | 153,725                                | 105,637                                | 364,698                                    | 624,060     | 0                                      | 0                                    | 0             |
| 1964                 | 0                        | 0                      | 0           | 216,131                                | 170,872                                | 529,854                                    | 916,857     | 6,694                                  | 21,659                               | 28,353        |
| 1965                 | 0                        | 0                      | 0           | 284,275                                | 259,858                                | 899,072                                    | 1,443,205   | 13,751                                 | 36,017                               | 49,768        |
| 1966                 | 18,057                   | 0                      | 18,057      | 320,279                                | 290,714                                | 1,072,916                                  | 1,683,909   | 26,516                                 | 61,329                               | 87,845        |
| 1967                 | 41,560                   | 0                      | 41,560      | 391,134                                | 320,885                                | 1,187,229                                  | 1,899,248   | 56,450                                 | 118,225                              | 174,675       |
| 1968                 | 121,469                  | 0                      | 121,469     | 507,646                                | 361,617                                | 1,309,517                                  | 2,178,980   | 104,127                                | 207,970                              | 312,097       |
| 1969                 | 165,236                  | 0                      | 165,236     | 609,761                                | 397,257                                | 1,411,240                                  | 2,418,258   | 122,004                                | 242,348                              | 364,352       |
| 1970                 | 169,023                  | 0                      | 169,023     | 644,078                                | 412,189                                | 1,450,186                                  | 2,506,453   | 125,923                                | 250,728                              | 376,651       |
| 1971                 | 171,231                  | 0                      | 171,231     | 650,897                                | 415,305                                | 1,457,089                                  | 2,523,291   | 128,361                                | 256,289                              | 384,650       |
| 1972                 | 172,593                  | 0                      | 172,593     | 652,206                                | 416,233                                | 1,461,370                                  | 2,529,809   | 129,819                                | 260,399                              | 390,218       |
| 1973                 | 173,593                  | 31,353                 | 204,946     | 653,539                                | 416,883                                | 1,464,608                                  | 2,535,030   | 130,802                                | 262,956                              | 393,758       |
| 1974                 | 176,471                  | 32,924                 | 209,395     | 654,523                                | 417,501                                | 1,466,613                                  | 2,538,637   | 131,973                                | 265,816                              | 397,789       |
| 1975                 | 184,914                  | 36,276                 | 221,190     | 656,819                                | 418,743                                | 1,470,336                                  | 2,545,898   | 133,248                                | 268,941                              | 402,189       |
| 1976                 | 189,589                  | 40,819                 | 230,408     | 658,140                                | 419,548                                | 1,472,444                                  | 2,550,132   | 133,998                                | 272,068                              | 406,066       |
| 1977                 | 192,530                  | 45,078                 | 237,608     | 660,803                                | 421,313                                | 1,478,024                                  | 2,560,140   | 135,711                                | 278,710                              | 414,421       |
| 1978                 | 195,797                  | 49,159                 | 244,956     | 664,373                                | 423,610                                | 1,484,815                                  | 2,572,798   | 141,226                                | 292,188                              | 433,414       |
| 1979                 | 199,326                  | 53,320                 | 252,646     | 669,666                                | 426,971                                | 1,493,720                                  | 2,590,357   | 142,316                                | 297,474                              | 439,790       |
| 1980                 | 209,065                  | 67,724                 | 276,788     | 673,449                                | 429,157                                | 1,499,354                                  | 2,601,960   | 143,484                                | 303,872                              | 447,356       |
| 1981                 | 222,528                  | 87,377                 | 309,905     | 683,589                                | 435,488                                | 1,514,863                                  | 2,633,940   | 148,742                                | 327,440                              | 476,182       |
| 1982                 | 234,116                  | 106,881                | 340,997     | 681,463                                | 433,968                                | 1,511,522                                  | 2,626,953   | 147,957                                | 320,554                              | 468,511       |
| 1983                 | 262,076                  | 151,207                | 413,284     | 682,698                                | 434,392                                | 1,512,899                                  | 2,629,989   | 148,166                                | 317,556                              | 465,722       |
| 1984                 | 325,968                  | 224,170                | 550,139     | 693,786                                | 441,088                                | 1,530,172                                  | 2,665,046   | 149,805                                | 323,171                              | 472,976       |
| 1985                 | 455,691                  | 364,186                | 819,877     | 706,190                                | 448,265                                | 1,548,090                                  | 2,702,545   | 151,610                                | 328,656                              | 480,266       |
| 1986                 | 819,376                  | 692,256                | 1,511,632   | 708,078                                | 449,245                                | 1,550,813                                  | 2,708,136   | 152,497                                | 332,673                              | 485,170       |
| 1987                 | 1,360,258                | 1,558,749              | 2,919,007   | 710,649                                | 450,862                                | 1,555,321                                  | 2,716,832   | 154,756                                | 348,360                              | 503,116       |
| 1988                 | 1,771,084                | 2,207,426              | 3,978,520   | 714,860                                | 453,368                                | 1,562,476                                  | 2,730,704   | 161,294                                | 347,458                              | 508,752       |
| 1989                 | 1,890,890                | 2,432,396              | 4,323,286   | 723,738                                | 459,184                                | 1,578,141                                  | 2,761,063   | 169,399                                | 349,091                              | 518,490       |
| 1990                 | 1,954,717                | 2,513,362              | 4,468,079   | 731,780                                | 464,542                                | 1,591,698                                  | 2,788,020   | 177,331                                | 357,209                              | 534,540       |
| 1991                 | 1,977,962                | 2,556,601              | 4,534,563   | 748,884                                | 476,306                                | 1,624,504                                  | 2,849,694   | 188,990                                | 369,036                              | 558,026       |
| 1992                 | 1,983,238                | 2,561,318              | 4,544,556   | 779,473                                | 496,563                                | 1,674,504                                  | 2,950,540   | 204,758                                | 375,445                              | 580,203       |
| 1993                 | 1,986,275                | 2,564,623              | 4,550,898   | 793,829                                | 505,611                                | 1,698,036                                  | 2,997,476   | 223,986                                | 384,012                              | 608,000       |
| 1994                 | 1,992,843                | 2,571,524              | 4,564,367   | 804,257                                | 512,334                                | 1,716,406                                  | 3,032,997   | 286,790                                | 394,091                              | 680,881       |
| 1995                 | 1,996,698                | 2,576,028              | 4,572,726   | 808,731                                | 515,474                                | 1,728,829                                  | 3,053,034   | 517,259                                | 4,094,617                            | 4,611,876     |
| 1996                 | 1,998,368                | 2,577,625              | 4,575,993   | 816,633                                | 520,770                                | 1,742,877                                  | 3,080,280   | 1,186,671                              | 12,565,710                           | 13,752,381    |
| 1997                 | 1,999,484                | 2,578,675              | 4,578,160   | 820,682                                | 523,416                                | 1,749,898                                  | 3,093,996   | 1,808,036                              | 20,572,448                           | 22,380,484    |
| 1998                 | 2,000,598                | 2,584,668              | 4,585,266   | 827,410                                | 527,808                                | 1,761,546                                  | 3,116,764   | 1,985,088                              | 22,693,988                           | 24,679,076    |
| 1999                 | 2,001,570                | 2,585,873              | 4,587,443   | 829,627                                | 529,153                                | 1,765,065                                  | 3,123,845   | 2,034,685                              | 23,287,300                           | 25,321,985    |
| 2000                 | 2,005,405                | 2,591,910              | 4,597,315   | 887,275                                | 533,338                                | 1,776,969                                  | 3,297,522   | 2,087,476                              | 23,832,603                           | 25,920,079    |
| 2001                 | 2,324,657                | 2,779,862              | 5,104,519   | 1,115,353                              | 534,991                                | 1,781,504                                  | 3,431,848   | 2,115,581                              | 24,150,915                           | 26,266,496    |
| 2002                 | 2,324,954                | 2,780,566              | 5,105,521   | 1,129,701                              | 550,658                                | 1,889,305                                  | 3,569,664   | 2,120,269                              | 24,187,628                           | 26,307,897    |
| 2003                 | 2,326,155                | 2,783,237              | 5,109,392   | 1,214,305                              | 620,665                                | 2,235,168                                  | 4,070,138   | 2,124,478                              | 24,215,240                           | 26,339,718    |
| 2004                 | 2,329,518                | 2,784,225              | 5,113,743   | 1,347,155                              | 700,044                                | 2,510,537                                  | 4,557,736   | 2,125,415                              | 24,231,974                           | 26,357,389    |
| 2005                 | 2,339,962                | 2,785,469              | 5,125,431   | 1,491,998                              | 783,488                                | 2,908,024                                  | 5,183,510   | 2,126,338                              | 24,239,219                           | 26,365,557    |
| 2006                 | 2,343,771                | 2,789,399              | 5,133,170   | 1,621,784                              | 875,049                                | 3,171,180                                  | 5,668,013   | 2,125,455                              | 24,226,636                           | 26,352,091    |
| 2007                 | 2,450,415                | 2,792,246              | 5,242,661   | 1,698,190                              | 918,551                                | 3,275,725                                  | 5,892,466   | 2,130,499                              | 24,264,036                           | 26,394,535    |
| 2008                 | 2,760,691                | 2,795,901              | 5,556,592   | 1,924,110                              | 1,047,852                              | 3,584,892                                  | 6,556,854   | 2,137,001                              | 24,305,052                           | 26,442,053    |
| 2009                 | 3,130,307                | 2,799,408              | 5,929,715   | 2,088,650                              | 1,141,906                              | 3,810,036                                  | 7,040,592   | 2,143,190                              | 24,345,801                           | 26,488,991    |
| 2010                 | 3,131,281                | 2,800,840              | 5,932,121   | 2,092,244                              | 1,143,773                              | 3,815,063                                  | 7,051,080   | 2,147,015                              | 24,378,541                           | 26,525,556    |
| 2011                 | 3,132,276                | 2,802,303              | 5,934,579   | 2,095,911                              | 1,145,680                              | 3,820,197                                  | 7,061,788   | 2,150,921                              | 24,411,973                           | 26,562,894    |
| 2012                 | 3,133,294                | 2,803,798              | 5,937,092   | 2,099,663                              | 1,147,630                              | 3,825,447                                  | 7,072,740   | 2,154,916                              | 24,446,161                           | 26,601,077    |
| 2013                 | 3,133,294                | 2,803,798              | 5,937,092   | 1,926,260                              | 1,041,992                              | 3,460,749                                  | 6,429,001   | 2,154,916                              | 24,446,161                           | 26,601,077    |
| 2014                 | 3,133,294                | 2,803,798              | 5,937,092   | 1,856,328                              | 976,758                                | 3,295,593                                  | 6,128,679   | 2,148,222                              | 24,424,502                           | 26,572,724    |
| 2015                 | 3,133,294                | 2,803,798              | 5,937,092   | 1,781,030                              | 887,771                                | 2,926,375                                  | 5,595,176   | 2,141,164                              | 24,410,144                           | 26,551,308    |
| 2016                 | 3,112,728                | 2,803,798              | 5,916,526   | 1,742,211                              | 856,916                                | 2,752,531                                  | 5,351,658   | 2,128,400                              | 24,384,832                           | 26,513,232    |
| 2017                 | 3,086,015                | 2,803,798              | 5,889,813   | 1,667,974                              | 826,744                                | 2,638,218                                  | 5,132,936   | 2,098,465                              | 24,327,936                           | 26,426,401    |
| 2018                 | 2,995,233                | 2,803,798              | 5,799,031   | 1,548,440                              | 785,812                                | 2,515,930                                  | 4,850,182   | 2,050,789                              | 24,238,191                           | 26,288,980    |
| 2019                 | 2,945,498                | 2,803,798              | 5,749,296   | 1,442,997                              | 750,372                                | 2,414,207                                  | 4,607,576   | 2,032,911                              | 24,203,813                           | 26,236,724    |
| 2020                 | 2,941,177                | 2,803,798              | 5,744,975   | 1,407,235                              | 735,440                                | 2,375,261                                  | 4,517,936   | 2,028,992                              | 24,195,433                           | 26,224,425    |
| 2021                 | 2,938,646                | 2,803,798              | 5,742,444   | 1,400,048                              | 732,324                                | 2,368,358                                  | 4,500,730   | 2,026,554                              | 24,189,872                           | 26,216,426    |
| 2022                 | 2,937,086                | 2,803,798              | 5,740,884   | 1,398,683                              | 731,396                                | 2,364,077                                  | 4,494,156   | 2,025,096                              | 24,185,762                           | 26,210,858    |
| 2023                 | 2,935,944                | 2,770,280              | 5,706,224   | 1,397,277                              | 730,747                                | 2,360,839                                  | 4,488,863   | 2,024,114                              | 24,183,205                           | 26,207,319    |
| 2024                 | 2,932,664                | 2,768,646              | 5,701,310   | 1,396,224                              | 730,129                                | 2,358,834                                  | 4,485,187   | 2,022,942                              | 24,180,345                           | 26,203,287    |
| 2025                 | 2,923,052                | 2,765,070              | 5,688,122   | 1,393,891                              | 728,886                                | 2,355,111                                  | 4,477,888   | 2,021,668                              | 24,177,220                           | 26,198,888    |
| 2026                 | 2,917,710                | 2,760,318              | 5,678,028   | 1,392,419                              | 728,082                                | 2,353,003                                  | 4,473,504   | 2,020,917                              | 24,174,093                           | 26,195,010    |
| 2027                 | 2,914,339                | 2,755,885              | 5,670,224   | 1,389,439                              | 726,317                                | 2,347,423                                  | 4,463,179   | 2,019,205                              | 24,167,451                           | 26,186,656    |
| 2028                 | 2,910,601                | 2,751,627              | 5,662,228   | 1,385,439                              | 724,020                                | 2,340,632                                  | 4,450,091   | 2,018,689                              | 24,153,973                           | 26,167,662    |
| 2029                 | 2,906,565                | 2,747,261              | 5,653,826   | 1,379,455                              | 720,659                                | 2,331,727                                  | 4,431,841   | 2,017,599                              | 24,148,687                           | 26,161,286    |
| 2030                 | 2,895,412                | 2,731,803              | 5,627,215   | 1,375,300                              | 718,473                                | 2,326,093                                  | 4,419,866   | 2,011,431                              | 24,142,289                           | 26,153,720    |
| 2031                 | 2,880,000                | 2,710,744              | 5,590,744   | 1,363,861                              | 712,141                                | 2,310,584                                  | 4,386,586   | 2,006,174                              | 24,118,721                           | 26,124,895    |
| 2032                 | 2,866,708                | 2,689,805              | 5,556,513   | 1,366,387                              | 713,661                                | 2,313,925                                  | 4,393,973   | 2,006,959                              | 24,125,607                           | 26,132,566    |
| 2033                 | 2,834,658                | 2,642,370              | 5,477,028   | 1,365,189                              | 713,238                                | 2,312,548                                  | 4,390,975   | 2,006,750                              | 24,128,605                           | 26,135,355    |
| 2034                 | 2,761,585                | 2,565,777              | 5,327,362   | 1,352,945                              | 706,542                                | 2,295,275                                  | 4,354,762   | 2,005,111                              | 24,122,990                           | 26,128,101    |
| 2035                 | 2,613,488                | 2,419,522              | 5,033,010   | 1,339,187                              | 699,364                                | 2,277,357                                  | 4,315,908   | 2,003,306                              | 24,117,505                           | 26,120,811    |
| TOTAL                | 130,995,881              | 133,057,851            | 264,053,732 | 78,962,360                             | 44,423,739                             | 149,689,382                                | 273,075,481 | 86,503,151                             | 966,780,519                          | 1,053,283,670 |

a) Unadjusted for prior overpayments or underpayments of charges.  
b) Determined at the current Project Interest Rate of 4.608 percent per annum.  
c) Reflects the transfers of permanent aqueduct capacity among contractors.

**TABLE B-15. Capital Cost Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |                                             |                   |                       |                               |                                                   |             |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|---------------------------------------------|-------------------|-----------------------|-------------------------------|---------------------------------------------------|-------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                                             |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total       |
|                  |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Municipal<br>and<br>Industrial <sup>a</sup> | Agri-<br>cultural |                       |                               |                                                   |             |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]                                        | [16]              | [17]                  | [18]                          | [19]                                              | [20]        |
| 1961             | 0                                    | 0                                             | 0                                             | 0                              | 0                                           | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 1962             | 0                                    | 0                                             | 0                                             | 0                              | 0                                           | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 1963             | 0                                    | 0                                             | 0                                             | 0                              | 0                                           | 0                 | 0                     | 0                             | 0                                                 | 0           |
| 1964             | 0                                    | 0                                             | 2,724                                         | 0                              | 0                                           | 0                 | 0                     | 0                             | 0                                                 | 2,724       |
| 1965             | 0                                    | 0                                             | 6,027                                         | 64,262                         | 9,281                                       | 0                 | 0                     | 0                             | 0                                                 | 79,570      |
| 1966             | 0                                    | 0                                             | 12,035                                        | 120,217                        | 17,068                                      | 0                 | 0                     | 0                             | 0                                                 | 149,320     |
| 1967             | 0                                    | 0                                             | 26,249                                        | 34,339                         | 0                                           | 0                 | 0                     | 0                             | 0                                                 | 293,774     |
| 1968             | 77,385                               | 1,747                                         | 48,934                                        | 335,663                        | 49,951                                      | 423,377           | 9,404                 | 4,715                         | 65,265                                            | 1,015,441   |
| 1969             | 77,520                               | 5,241                                         | 57,399                                        | 391,879                        | 52,519                                      | 869,466           | 10,154                | 5,125                         | 246,939                                           | 1,716,243   |
| 1970             | 84,961                               | 5,241                                         | 59,206                                        | 423,268                        | 53,905                                      | 1,057,532         | 10,442                | 5,330                         | 182,739                                           | 1,882,625   |
| 1971             | 96,866                               | 5,241                                         | 60,310                                        | 444,380                        | 54,695                                      | 1,404,594         | 10,608                | 5,740                         | 194,461                                           | 2,276,896   |
| 1972             | 108,230                              | 5,241                                         | 60,925                                        | 454,082                        | 55,057                                      | 2,103,256         | 10,690                | 11,000                        | 599,896                                           | 3,408,378   |
| 1973             | 119,053                              | 5,241                                         | 61,351                                        | 458,302                        | 55,231                                      | 2,425,783         | 10,733                | 6,355                         | 232,030                                           | 3,374,079   |
| 1974             | 180,691                              | 5,241                                         | 61,870                                        | 460,337                        | 55,331                                      | 2,716,516         | 10,766                | 7,116                         | 385,132                                           | 3,883,000   |
| 1975             | 219,464                              | 5,241                                         | 62,432                                        | 462,650                        | 55,472                                      | 3,253,641         | 10,808                | 7,331                         | 459,555                                           | 4,536,594   |
| 1976             | 167,329                              | 5,241                                         | 62,700                                        | 464,506                        | 55,661                                      | 3,507,395         | 10,849                | 8,280                         | 328,756                                           | 4,610,718   |
| 1977             | 164,510                              | 5,241                                         | 63,342                                        | 467,209                        | 55,947                                      | 3,843,095         | 10,911                | 7,585                         | 314,333                                           | 4,932,173   |
| 1978             | 175,874                              | 0                                             | 65,775                                        | 469,066                        | 56,138                                      | 4,271,925         | 11,016                | 7,995                         | 337,242                                           | 5,395,031   |
| 1979             | 208,581                              | 5,241                                         | 66,090                                        | 471,827                        | 56,473                                      | 4,690,758         | 11,082                | 8,200                         | 379,551                                           | 5,897,803   |
| 1980             | 221,872                              | 5,241                                         | 66,378                                        | 474,569                        | 56,810                                      | 5,118,678         | 11,153                | 11,685                        | 381,996                                           | 6,348,383   |
| 1981             | 221,872                              | 5,241                                         | 67,964                                        | 490,958                        | 58,751                                      | 5,602,017         | 11,561                | 8,815                         | 404,903                                           | 6,872,083   |
| 1982             | 221,872                              | 5,241                                         | 67,975                                        | 488,679                        | 58,689                                      | 6,048,107         | 11,548                | 9,225                         | 427,281                                           | 7,338,617   |
| 1983             | 232,154                              | 5,241                                         | 68,311                                        | 492,919                        | 59,358                                      | 6,555,977         | 11,681                | 7,728                         | 50,869                                            | 7,484,239   |
| 1984             | 244,059                              | 5,241                                         | 68,928                                        | 498,543                        | 60,064                                      | 6,877,598         | 11,830                | 9,840                         | 333,572                                           | 8,109,675   |
| 1985             | 255,424                              | 5,241                                         | 69,656                                        | 506,425                        | 61,223                                      | 7,323,689         | 12,065                | 10,045                        | 242,672                                           | 8,486,440   |
| 1986             | 266,788                              | 5,241                                         | 69,944                                        | 508,820                        | 61,568                                      | 7,452,205         | 12,137                | 10,455                        | 517,853                                           | 8,905,011   |
| 1987             | 278,152                              | 5,241                                         | 70,449                                        | 512,489                        | 62,096                                      | 8,216,777         | 12,247                | 10,660                        | 540,229                                           | 9,708,340   |
| 1988             | 289,516                              | 5,241                                         | 70,809                                        | 515,348                        | 62,506                                      | 8,637,427         | 12,330                | 11,070                        | 562,606                                           | 10,166,853  |
| 1989             | 300,890                              | 5,241                                         | 71,694                                        | 519,003                        | 63,130                                      | 8,940,876         | 12,497                | 11,480                        | 585,513                                           | 10,510,314  |
| 1990             | 156,122                              | 5,241                                         | 73,130                                        | 537,356                        | 65,369                                      | 9,256,140         | 12,932                | 11,685                        | 631,333                                           | 10,749,308  |
| 1991             | 289,034                              | 5,241                                         | 75,772                                        | 566,393                        | 69,944                                      | 9,256,140         | 13,757                | 11,685                        | 631,333                                           | 10,919,300  |
| 1992             | 312,244                              | 5,241                                         | 78,965                                        | 597,071                        | 74,793                                      | 9,256,140         | 14,752                | 11,685                        | 631,333                                           | 10,982,224  |
| 1993             | 312,244                              | 5,241                                         | 80,456                                        | 609,930                        | 76,633                                      | 9,256,140         | 15,120                | 11,685                        | 631,333                                           | 10,998,782  |
| 1994             | 312,244                              | 5,241                                         | 82,079                                        | 619,299                        | 77,912                                      | 9,256,140         | 15,392                | 11,685                        | 631,333                                           | 11,011,325  |
| 1995             | 312,244                              | 5,241                                         | 83,371                                        | 626,034                        | 78,865                                      | 9,256,140         | 15,603                | 11,685                        | 631,333                                           | 11,020,517  |
| 1996             | 288,814                              | 5,241                                         | 87,340                                        | 635,184                        | 80,196                                      | 8,938,429         | 15,956                | 11,685                        | 631,333                                           | 10,694,178  |
| 1997             | 288,814                              | 5,241                                         | 90,203                                        | 638,976                        | 80,681                                      | 8,872,915         | 16,128                | 11,685                        | 631,333                                           | 10,635,976  |
| 1998             | 288,819                              | 5,241                                         | 92,912                                        | 652,398                        | 82,706                                      | 8,613,754         | 16,583                | 11,685                        | 631,333                                           | 10,395,431  |
| 1999             | 288,819                              | 5,241                                         | 94,205                                        | 659,278                        | 83,750                                      | 8,613,754         | 16,818                | 11,685                        | 631,333                                           | 10,404,882  |
| 2000             | 288,819                              | 5,241                                         | 95,728                                        | 667,504                        | 84,996                                      | 7,970,205         | 17,093                | 11,685                        | 631,333                                           | 9,772,604   |
| 2001             | 288,819                              | 5,241                                         | 96,292                                        | 670,125                        | 85,341                                      | 7,841,428         | 17,169                | 11,685                        | 631,333                                           | 9,647,434   |
| 2002             | 310,715                              | 5,241                                         | 96,745                                        | 672,199                        | 85,632                                      | 7,841,428         | 17,233                | 11,685                        | 592,910                                           | 9,633,789   |
| 2003             | 310,715                              | 5,241                                         | 97,683                                        | 680,005                        | 86,810                                      | 7,841,428         | 17,473                | 11,685                        | 590,704                                           | 9,641,744   |
| 2004             | 310,715                              | 5,241                                         | 97,345                                        | 675,412                        | 86,023                                      | 7,829,467         | 44,666                | 11,685                        | 508,926                                           | 9,569,479   |
| 2005             | 310,715                              | 5,241                                         | 97,488                                        | 676,336                        | 86,135                                      | 7,829,467         | 44,691                | 11,685                        | 508,926                                           | 9,570,684   |
| 2006             | 310,715                              | 5,241                                         | 97,811                                        | 679,136                        | 86,543                                      | 7,829,467         | 46,442                | 11,685                        | 507,258                                           | 9,574,299   |
| 2007             | 334,140                              | 5,241                                         | 98,732                                        | 684,673                        | 87,309                                      | 8,202,740         | 46,609                | 11,685                        | 507,258                                           | 9,978,388   |
| 2008             | 334,140                              | 5,241                                         | 100,280                                       | 695,782                        | 88,944                                      | 8,202,740         | 46,956                | 11,685                        | 507,258                                           | 9,993,026   |
| 2009             | 334,140                              | 5,241                                         | 101,653                                       | 704,607                        | 90,200                                      | 8,202,740         | 47,225                | 11,685                        | 507,258                                           | 10,004,749  |
| 2010             | 334,140                              | 5,241                                         | 102,138                                       | 706,259                        | 90,423                                      | 8,202,740         | 47,280                | 11,685                        | 507,258                                           | 10,007,164  |
| 2011             | 334,140                              | 5,241                                         | 102,634                                       | 707,947                        | 90,652                                      | 8,202,740         | 47,335                | 11,685                        | 507,258                                           | 10,009,632  |
| 2012             | 334,140                              | 5,241                                         | 103,141                                       | 709,672                        | 90,886                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 10,012,156  |
| 2013             | 334,140                              | 5,241                                         | 103,141                                       | 709,672                        | 90,886                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 10,012,156  |
| 2014             | 334,140                              | 5,241                                         | 100,417                                       | 709,672                        | 90,886                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 10,009,432  |
| 2015             | 334,140                              | 5,241                                         | 97,113                                        | 645,410                        | 81,605                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 9,932,585   |
| 2016             | 334,140                              | 5,241                                         | 91,105                                        | 589,455                        | 73,818                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 9,862,835   |
| 2017             | 334,140                              | 5,241                                         | 76,892                                        | 476,486                        | 56,547                                      | 8,202,740         | 47,393                | 11,685                        | 507,258                                           | 9,718,382   |
| 2018             | 334,140                              | 5,241                                         | 54,206                                        | 374,009                        | 41,935                                      | 8,202,740         | 37,989                | 11,685                        | 507,258                                           | 9,569,203   |
| 2019             | 334,140                              | 5,241                                         | 45,741                                        | 317,793                        | 38,367                                      | 8,202,740         | 37,238                | 11,685                        | 507,258                                           | 9,500,203   |
| 2020             | 334,140                              | 5,241                                         | 43,935                                        | 286,404                        | 36,981                                      | 8,202,740         | 36,951                | 11,685                        | 507,258                                           | 9,465,335   |
| 2021             | 334,140                              | 5,241                                         | 42,831                                        | 265,292                        | 36,191                                      | 8,202,740         | 36,785                | 11,685                        | 507,258                                           | 9,442,163   |
| 2022             | 334,140                              | 5,241                                         | 42,215                                        | 255,590                        | 35,829                                      | 8,202,740         | 36,703                | 11,685                        | 507,258                                           | 9,431,401   |
| 2023             | 334,140                              | 5,241                                         | 41,790                                        | 251,370                        | 35,655                                      | 8,202,740         | 36,660                | 11,685                        | 507,258                                           | 9,426,539   |
| 2024             | 334,140                              | 5,241                                         | 41,270                                        | 249,335                        | 35,555                                      | 8,202,740         | 36,627                | 11,685                        | 507,258                                           | 9,423,851   |
| 2025             | 334,140                              | 5,241                                         | 40,708                                        | 247,022                        | 35,414                                      | 8,202,740         | 36,584                | 11,685                        | 507,258                                           | 9,420,792   |
| 2026             | 334,140                              | 5,241                                         | 40,441                                        | 245,166                        | 35,225                                      | 8,202,740         | 36,544                | 11,685                        | 507,258                                           | 9,418,440   |
| 2027             | 334,140                              | 5,241                                         | 39,799                                        | 242,463                        | 34,939                                      | 8,202,740         | 36,482                | 11,685                        | 507,258                                           | 9,414,747   |
| 2028             | 334,140                              | 5,241                                         | 37,366                                        | 240,606                        | 34,748                                      | 8,202,740         | 36,377                | 11,685                        | 507,258                                           | 9,410,161   |
| 2029             | 334,140                              | 5,241                                         | 37,051                                        | 237,845                        | 34,413                                      | 8,202,740         | 36,310                | 11,685                        | 507,258                                           | 9,406,683   |
| 2030             | 334,140                              | 5,241                                         | 36,763                                        | 235,103                        | 34,076                                      | 8,202,740         | 36,240                | 11,685                        | 507,258                                           | 9,403,246   |
| 2031             | 334,140                              | 5,241                                         | 35,176                                        | 218,714                        | 32,135                                      | 8,202,740         | 35,832                | 11,685                        | 507,258                                           | 9,382,921   |
| 2032             | 334,140                              | 5,241                                         | 35,166                                        | 220,994                        | 32,197                                      | 8,202,740         | 35,845                | 11,685                        | 507,258                                           | 9,385,266   |
| 2033             | 334,140                              | 5,241                                         | 34,830                                        | 216,753                        | 31,528                                      | 8,202,740         | 35,711                | 11,685                        | 507,258                                           | 9,379,886   |
| 2034             | 334,140                              | 5,241                                         | 34,213                                        | 211,129                        | 30,822                                      | 8,202,740         | 35,563                | 11,685                        | 507,258                                           | 9,372,791   |
| 2035             | 334,140                              | 5,241                                         | 33,484                                        | 203,248                        | 29,663                                      | 8,202,740         | 35,328                | 11,685                        | 507,258                                           | 9,362,787   |
| TOTAL            | 18,883,724                           | 347,662                                       | 4,781,233                                     | 33,449,696                     | 4,250,421                                   | 484,778,732       | 1,779,852             | 723,283                       | 32,768,595                                        | 581,763,198 |

d) Charges under Amendment No. 18 of the water supply contract with Kern County Water Agency.

**TABLE B-15. Capital Cost Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                         |                                    |                                          |                                                 |                           |                                               |                           |                               |                                                         |                                                      |
|------------------|--------------------------------------------------|------------------------------------|------------------------------------------|-------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|---------------------------------------------------------|------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water District |
|                  | [21]                                             | [22]                               | [23]                                     | [24]                                            | [25]                      | [26]                                          | [27]                      | [28]                          | [29]                                                    | [30]                                                 |
| 1961             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1962             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1963             | 33,309                                           | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 51,711                                                  | 0                                                    |
| 1964             | 62,847                                           | 27,438                             | 16,286                                   | 4,369                                           | 37,145                    | 1,142                                         | 28,427                    | 8,202                         | 82,782                                                  | 34,973                                               |
| 1965             | 118,565                                          | 52,989                             | 28,459                                   | 7,191                                           | 40,756                    | 2,081                                         | 50,300                    | 15,217                        | 135,023                                                 | 35,333                                               |
| 1966             | 215,713                                          | 101,232                            | 51,184                                   | 12,474                                          | 73,129                    | 3,752                                         | 90,369                    | 27,670                        | 232,426                                                 | 61,445                                               |
| 1967             | 417,348                                          | 210,746                            | 98,904                                   | 23,464                                          | 141,365                   | 7,282                                         | 175,119                   | 54,006                        | 433,210                                                 | 115,536                                              |
| 1968             | 679,132                                          | 419,579                            | 164,991                                  | 38,538                                          | 231,834                   | 11,777                                        | 286,701                   | 87,265                        | 729,615                                                 | 194,465                                              |
| 1969             | 966,308                                          | 623,243                            | 249,378                                  | 57,283                                          | 345,252                   | 17,243                                        | 426,589                   | 127,179                       | 1,136,053                                               | 302,553                                              |
| 1970             | 1,288,041                                        | 780,054                            | 352,336                                  | 84,769                                          | 487,182                   | 23,419                                        | 592,598                   | 171,243                       | 1,690,923                                               | 443,566                                              |
| 1971             | 1,548,953                                        | 946,985                            | 471,194                                  | 120,171                                         | 659,386                   | 28,835                                        | 790,147                   | 208,755                       | 2,394,267                                               | 619,582                                              |
| 1972             | 1,682,697                                        | 1,056,391                          | 533,559                                  | 137,410                                         | 749,360                   | 31,296                                        | 897,191                   | 226,425                       | 2,824,733                                               | 720,754                                              |
| 1973             | 1,733,186                                        | 1,070,858                          | 553,392                                  | 142,098                                         | 777,217                   | 32,271                                        | 931,585                   | 233,266                       | 2,962,112                                               | 756,290                                              |
| 1974             | 1,751,576                                        | 1,117,449                          | 562,610                                  | 146,284                                         | 790,534                   | 32,592                                        | 944,027                   | 235,613                       | 3,051,750                                               | 776,837                                              |
| 1975             | 1,774,997                                        | 1,131,822                          | 577,197                                  | 150,058                                         | 812,296                   | 33,006                                        | 971,021                   | 238,624                       | 3,134,098                                               | 798,523                                              |
| 1976             | 1,788,124                                        | 1,144,406                          | 587,768                                  | 152,747                                         | 828,555                   | 33,258                                        | 991,263                   | 240,355                       | 3,212,183                                               | 819,292                                              |
| 1977             | 1,800,420                                        | 1,157,448                          | 595,329                                  | 154,643                                         | 840,037                   | 33,475                                        | 1,005,782                 | 241,933                       | 3,261,176                                               | 832,321                                              |
| 1978             | 1,810,750                                        | 1,176,420                          | 600,379                                  | 155,959                                         | 847,711                   | 33,666                                        | 1,015,604                 | 243,300                       | 3,291,289                                               | 840,240                                              |
| 1979             | 1,826,394                                        | 1,200,415                          | 604,990                                  | 157,091                                         | 854,308                   | 33,932                                        | 1,024,100                 | 245,268                       | 3,313,131                                               | 845,930                                              |
| 1980             | 1,844,919                                        | 1,248,282                          | 609,777                                  | 158,201                                         | 861,177                   | 34,236                                        | 1,033,076                 | 247,529                       | 3,333,678                                               | 851,450                                              |
| 1981             | 1,941,660                                        | 1,338,837                          | 636,015                                  | 163,962                                         | 896,759                   | 35,887                                        | 1,077,612                 | 259,794                       | 3,437,581                                               | 879,355                                              |
| 1982             | 1,933,412                                        | 1,369,996                          | 632,062                                  | 163,511                                         | 892,804                   | 35,756                                        | 1,072,876                 | 258,797                       | 3,430,256                                               | 877,137                                              |
| 1983             | 2,014,262                                        | 1,413,950                          | 648,871                                  | 167,528                                         | 917,891                   | 37,092                                        | 1,104,681                 | 268,810                       | 3,502,625                                               | 896,905                                              |
| 1984             | 2,121,326                                        | 1,440,538                          | 670,884                                  | 173,418                                         | 951,144                   | 38,859                                        | 1,142,162                 | 282,045                       | 3,610,884                                               | 926,520                                              |
| 1985             | 2,200,039                                        | 1,455,659                          | 686,764                                  | 177,751                                         | 976,129                   | 40,247                                        | 1,173,518                 | 291,645                       | 3,689,629                                               | 948,078                                              |
| 1986             | 2,246,544                                        | 1,463,805                          | 698,218                                  | 180,934                                         | 994,360                   | 40,914                                        | 1,205,255                 | 297,120                       | 3,746,498                                               | 963,621                                              |
| 1987             | 2,290,309                                        | 1,469,235                          | 709,928                                  | 183,911                                         | 1,013,034                 | 41,377                                        | 1,220,251                 | 301,897                       | 3,800,178                                               | 978,277                                              |
| 1988             | 2,307,717                                        | 1,474,730                          | 718,732                                  | 186,176                                         | 1,027,137                 | 41,664                                        | 1,238,246                 | 303,993                       | 3,840,527                                               | 989,254                                              |
| 1989             | 2,321,324                                        | 1,483,792                          | 722,401                                  | 187,353                                         | 1,032,760                 | 41,839                                        | 1,245,234                 | 305,378                       | 3,862,773                                               | 995,140                                              |
| 1990             | 2,376,618                                        | 1,506,478                          | 741,616                                  | 192,411                                         | 1,060,538                 | 42,713                                        | 1,279,437                 | 311,911                       | 3,934,480                                               | 1,014,532                                            |
| 1991             | 2,412,406                                        | 1,526,119                          | 759,874                                  | 197,542                                         | 1,089,317                 | 43,098                                        | 1,314,716                 | 315,436                       | 4,013,699                                               | 1,036,030                                            |
| 1992             | 2,456,548                                        | 1,547,359                          | 779,790                                  | 203,932                                         | 1,121,316                 | 43,730                                        | 1,353,471                 | 320,331                       | 4,118,290                                               | 1,064,576                                            |
| 1993             | 2,490,605                                        | 1,566,360                          | 794,895                                  | 210,923                                         | 1,145,092                 | 44,239                                        | 1,380,175                 | 324,417                       | 4,229,726                                               | 1,095,098                                            |
| 1994             | 2,525,075                                        | 1,584,177                          | 807,651                                  | 220,102                                         | 1,164,765                 | 44,786                                        | 1,399,138                 | 328,384                       | 4,436,172                                               | 1,151,256                                            |
| 1995             | 2,550,681                                        | 1,593,135                          | 815,344                                  | 225,178                                         | 1,176,594                 | 45,178                                        | 1,410,957                 | 331,262                       | 4,563,157                                               | 1,185,751                                            |
| 1996             | 2,576,074                                        | 1,609,138                          | 823,318                                  | 229,455                                         | 1,188,534                 | 45,584                                        | 1,423,636                 | 334,239                       | 4,670,098                                               | 1,214,705                                            |
| 1997             | 2,592,836                                        | 1,620,522                          | 830,201                                  | 231,931                                         | 1,198,571                 | 45,853                                        | 1,435,302                 | 336,210                       | 4,890,575                                               | 1,268,272                                            |
| 1998             | 2,617,453                                        | 1,634,405                          | 836,569                                  | 233,300                                         | 1,208,050                 | 46,264                                        | 1,960,073                 | 339,238                       | 5,047,337                                               | 1,290,351                                            |
| 1999             | 2,630,574                                        | 1,645,712                          | 840,426                                  | 235,602                                         | 1,213,780                 | 46,486                                        | 1,966,884                 | 340,876                       | 5,246,597                                               | 1,307,340                                            |
| 2000             | 2,646,159                                        | 2,799,550                          | 845,840                                  | 237,785                                         | 1,222,113                 | 46,763                                        | 1,977,372                 | 404,656                       | 5,556,215                                               | 1,320,327                                            |
| 2001             | 2,654,237                                        | 2,805,476                          | 849,253                                  | 239,158                                         | 1,227,301                 | 46,915                                        | 1,983,935                 | 405,856                       | 6,339,304                                               | 1,330,150                                            |
| 2002             | 2,678,268                                        | 2,808,670                          | 852,342                                  | 240,066                                         | 1,232,158                 | 47,087                                        | 1,990,197                 | 407,112                       | 7,459,404                                               | 1,335,726                                            |
| 2003             | 2,688,045                                        | 2,816,210                          | 854,621                                  | 240,737                                         | 1,235,484                 | 47,229                                        | 1,994,810                 | 408,286                       | 8,024,736                                               | 1,343,149                                            |
| 2004             | 2,685,105                                        | 2,815,909                          | 909,067                                  | 240,863                                         | 1,235,743                 | 47,176                                        | 1,995,319                 | 407,946                       | 8,248,366                                               | 1,344,732                                            |
| 2005             | 2,688,639                                        | 2,819,157                          | 6,519,065                                | 241,177                                         | 1,295,193                 | 47,238                                        | 1,998,034                 | 408,466                       | 8,372,090                                               | 1,346,917                                            |
| 2006             | 2,698,852                                        | 2,826,122                          | 6,566,877                                | 241,800                                         | 2,004,596                 | 47,408                                        | 2,002,065                 | 409,781                       | 8,428,648                                               | 1,350,049                                            |
| 2007             | 2,719,463                                        | 2,849,642                          | 6,678,936                                | 244,607                                         | 2,030,065                 | 47,758                                        | 2,017,179                 | 412,786                       | 8,550,637                                               | 1,363,507                                            |
| 2008             | 2,749,645                                        | 2,889,891                          | 7,027,291                                | 249,218                                         | 2,098,144                 | 48,270                                        | 2,047,499                 | 417,084                       | 8,636,154                                               | 1,385,963                                            |
| 2009             | 2,778,172                                        | 2,936,665                          | 7,734,783                                | 252,314                                         | 2,211,133                 | 48,754                                        | 2,074,440                 | 421,192                       | 8,695,131                                               | 1,402,009                                            |
| 2010             | 2,782,819                                        | 2,955,702                          | 7,745,767                                | 252,745                                         | 2,214,798                 | 48,840                                        | 2,077,815                 | 421,880                       | 8,704,955                                               | 1,404,631                                            |
| 2011             | 2,787,566                                        | 2,961,387                          | 7,756,984                                | 253,185                                         | 2,218,540                 | 48,927                                        | 2,081,262                 | 422,584                       | 8,714,986                                               | 1,407,308                                            |
| 2012             | 2,792,420                                        | 2,966,216                          | 7,768,455                                | 253,635                                         | 2,222,367                 | 49,016                                        | 2,084,787                 | 423,302                       | 8,725,244                                               | 1,410,047                                            |
| 2013             | 2,759,111                                        | 2,966,216                          | 7,706,625                                | 253,635                                         | 2,200,654                 | 49,016                                        | 2,084,787                 | 423,302                       | 8,673,534                                               | 1,396,950                                            |
| 2014             | 2,729,574                                        | 2,932,085                          | 7,641,305                                | 249,266                                         | 2,184,224                 | 47,874                                        | 2,051,899                 | 414,404                       | 8,642,462                                               | 1,388,772                                            |
| 2015             | 2,673,855                                        | 2,901,274                          | 7,583,859                                | 246,444                                         | 2,160,520                 | 46,935                                        | 2,026,381                 | 406,811                       | 8,590,221                                               | 1,374,714                                            |
| 2016             | 2,576,708                                        | 2,844,157                          | 7,479,874                                | 241,161                                         | 2,117,172                 | 45,264                                        | 1,978,918                 | 393,223                       | 8,492,818                                               | 1,348,602                                            |
| 2017             | 2,375,073                                        | 2,710,302                          | 7,255,521                                | 230,171                                         | 2,025,076                 | 41,734                                        | 1,879,436                 | 364,792                       | 8,292,034                                               | 1,294,510                                            |
| 2018             | 2,113,287                                        | 2,422,579                          | 6,938,079                                | 215,097                                         | 1,900,656                 | 37,238                                        | 1,741,905                 | 327,582                       | 7,995,629                                               | 1,215,581                                            |
| 2019             | 1,806,113                                        | 2,126,632                          | 6,509,468                                | 196,352                                         | 1,740,742                 | 31,773                                        | 1,564,632                 | 281,489                       | 7,589,192                                               | 1,107,494                                            |
| 2020             | 1,504,380                                        | 1,895,996                          | 5,989,464                                | 168,866                                         | 1,542,480                 | 25,597                                        | 1,357,585                 | 230,574                       | 7,034,322                                               | 966,480                                              |
| 2021             | 1,243,467                                        | 1,648,994                          | 5,342,622                                | 133,464                                         | 1,298,959                 | 20,180                                        | 1,125,176                 | 187,197                       | 6,330,978                                               | 790,465                                              |
| 2022             | 1,109,723                                        | 1,489,510                          | 4,448,578                                | 116,225                                         | 1,096,646                 | 17,719                                        | 999,846                   | 166,354                       | 5,900,511                                               | 689,293                                              |
| 2023             | 1,059,234                                        | 1,481,787                          | 3,750,167                                | 111,537                                         | 977,130                   | 16,745                                        | 958,630                   | 158,320                       | 5,763,132                                               | 653,757                                              |
| 2024             | 1,040,844                                        | 1,422,932                          | 3,635,628                                | 107,351                                         | 949,586                   | 16,424                                        | 943,720                   | 155,510                       | 5,673,495                                               | 633,209                                              |
| 2025             | 1,017,422                                        | 1,405,074                          | 3,522,836                                | 103,577                                         | 914,558                   | 16,010                                        | 913,930                   | 151,935                       | 5,591,147                                               | 611,523                                              |
| 2026             | 1,004,296                                        | 1,386,832                          | 3,420,242                                | 100,888                                         | 885,870                   | 15,757                                        | 892,231                   | 149,916                       | 5,513,062                                               | 590,755                                              |
| 2027             | 992,000                                          | 1,368,326                          | 3,344,957                                | 98,992                                          | 865,239                   | 15,541                                        | 876,645                   | 148,105                       | 5,464,068                                               | 577,726                                              |
| 2028             | 981,670                                          | 1,340,500                          | 3,308,442                                | 97,676                                          | 853,317                   | 15,350                                        | 866,351                   | 146,589                       | 5,433,955                                               | 569,807                                              |
| 2029             | 966,026                                          | 1,302,198                          | 3,277,187                                | 96,544                                          | 843,120                   | 15,084                                        | 856,834                   | 144,377                       | 5,412,114                                               | 564,116                                              |
| 2030             | 947,501                                          | 1,225,009                          | 3,251,693                                | 95,434                                          | 833,453                   | 14,780                                        | 846,818                   | 141,863                       | 5,391,567                                               | 558,597                                              |
| 2031             | 850,761                                          | 1,082,000                          | 3,121,249                                | 89,673                                          | 783,797                   | 13,128                                        | 791,447                   | 127,705                       | 5,287,663                                               | 530,692                                              |
| 2032             | 859,008                                          | 1,030,512                          | 3,131,338                                | 90,124                                          | 788,580                   | 13,260                                        | 800,469                   | 129,338                       | 5,294,989                                               | 532,909                                              |
| 2033             | 778,157                                          | 957,984                            | 3,052,617                                | 86,107                                          | 755,131                   | 11,924                                        | 765,333                   | 118,675                       | 5,222,619                                               | 513,142                                              |
| 2034             | 671,094                                          | 915,761                            | 2,943,321                                | 80,217                                          | 710,087                   | 10,157                                        | 719,890                   | 104,691                       | 5,114,360                                               | 483,526                                              |
| 2035             | 592,381                                          | 894,047                            | 2,860,693                                | 75,884                                          | 676,086                   | 8,769                                         | 687,252                   | 94,796                        | 5,035,615                                               | 461,969                                              |
| TOTAL            | 133,969,812                                      | 119,211,005                        | 192,436,341                              | 11,939,645                                      | 81,896,536                | 2,362,469                                     | 90,712,349                | 19,042,107                    | 365,536,588                                             | 65,730,392                                           |

**TABLE B-15. Capital Cost Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)   |                                                                 |                                                |               | FEATHER RIVER AREA         |                       |                            |         | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|----------------------------------------|-----------------------------------------------------------------|------------------------------------------------|---------------|----------------------------|-----------------------|----------------------------|---------|-------------------------------------------|----------------|
|                  | San Geronio<br>Pass<br>Water<br>Agency | The Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood Control<br>District | Total         | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total   |                                           |                |
|                  | [31]                                   | [32]                                                            | [33]                                           | [34]          | [35]                       | [36]                  | [37]                       | [38]    | [39]                                      | [40]           |
| 1961             | 0                                      | 0                                                               | 0                                              | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| 1962             | 0                                      | 0                                                               | 0                                              | 0             | 0                          | 0                     | 0                          | 0       | 0                                         | 0              |
| 1963             | 0                                      | 690,539                                                         | 0                                              | 775,559       | 0                          | 0                     | 0                          | 0       | 0                                         | 1,399,620      |
| 1964             | 21,728                                 | 1,260,042                                                       | 9,375                                          | 1,594,755     | 0                          | 0                     | 0                          | 0       | 0                                         | 2,542,689      |
| 1965             | 21,859                                 | 2,179,810                                                       | 17,761                                         | 2,705,344     | 0                          | 0                     | 405                        | 405     | 0                                         | 4,278,292      |
| 1966             | 37,952                                 | 3,898,819                                                       | 33,415                                         | 4,839,578     | 0                          | 0                     | 564                        | 564     | 0                                         | 6,779,273      |
| 1967             | 71,260                                 | 7,691,085                                                       | 68,133                                         | 9,507,458     | 0                          | 0                     | 562                        | 562     | 0                                         | 11,917,277     |
| 1968             | 120,056                                | 14,340,331                                                      | 133,256                                        | 17,437,540    | 0                          | 0                     | 564                        | 564     | 0                                         | 21,066,091     |
| 1969             | 187,000                                | 21,850,137                                                      | 202,534                                        | 26,510,751    | 0                          | 0                     | 3,190                      | 3,190   | 0                                         | 31,178,029     |
| 1970             | 274,923                                | 28,982,865                                                      | 257,777                                        | 35,429,696    | 0                          | 0                     | 15,116                     | 15,116  | 0                                         | 40,379,563     |
| 1971             | 384,903                                | 37,229,879                                                      | 316,207                                        | 45,719,265    | 0                          | 0                     | 15,942                     | 15,942  | 0                                         | 51,091,274     |
| 1972             | 447,913                                | 44,047,132                                                      | 353,823                                        | 53,708,683    | 0                          | 0                     | 17,327                     | 17,327  | 0                                         | 60,227,008     |
| 1973             | 470,035                                | 46,283,635                                                      | 357,228                                        | 56,303,173    | 0                          | 0                     | 17,327                     | 17,327  | 0                                         | 62,828,313     |
| 1974             | 483,106                                | 48,306,053                                                      | 371,994                                        | 58,570,424    | 0                          | 0                     | 17,329                     | 17,329  | 0                                         | 65,616,575     |
| 1975             | 496,565                                | 49,268,119                                                      | 376,391                                        | 59,762,717    | 0                          | 0                     | 17,331                     | 17,331  | 0                                         | 67,485,918     |
| 1976             | 509,488                                | 50,120,026                                                      | 380,667                                        | 60,808,133    | 0                          | 0                     | 17,332                     | 17,332  | 0                                         | 68,622,789     |
| 1977             | 517,576                                | 50,809,655                                                      | 384,975                                        | 61,634,771    | 0                          | 0                     | 17,335                     | 17,335  | 0                                         | 69,796,447     |
| 1978             | 522,490                                | 51,408,868                                                      | 390,618                                        | 62,337,293    | 0                          | 0                     | 17,336                     | 17,336  | 0                                         | 71,000,828     |
| 1979             | 526,011                                | 52,212,368                                                      | 399,522                                        | 63,243,460    | 0                          | 0                     | 17,338                     | 17,338  | 0                                         | 72,441,394     |
| 1980             | 529,414                                | 53,618,983                                                      | 417,004                                        | 64,787,725    | 0                          | 0                     | 17,339                     | 17,339  | 0                                         | 74,479,550     |
| 1981             | 546,614                                | 56,648,010                                                      | 449,669                                        | 68,311,754    | 0                          | 0                     | 17,341                     | 17,341  | 0                                         | 78,621,204     |
| 1982             | 545,272                                | 57,445,385                                                      | 461,087                                        | 69,118,350    | 0                          | 0                     | 17,342                     | 17,342  | 0                                         | 79,910,771     |
| 1983             | 557,430                                | 59,017,274                                                      | 477,181                                        | 71,024,500    | 0                          | 0                     | 17,343                     | 17,343  | 0                                         | 82,035,076     |
| 1984             | 575,647                                | 60,292,946                                                      | 486,708                                        | 72,713,081    | 0                          | 0                     | 17,344                     | 17,344  | 0                                         | 84,528,260     |
| 1985             | 588,902                                | 61,123,708                                                      | 491,961                                        | 73,844,031    | 0                          | 0                     | 17,345                     | 17,345  | 0                                         | 86,350,503     |
| 1986             | 598,458                                | 61,644,854                                                      | 494,820                                        | 74,575,401    | 0                          | 0                     | 17,347                     | 17,347  | 0                                         | 88,202,697     |
| 1987             | 607,471                                | 62,073,067                                                      | 496,600                                        | 75,185,534    | 0                          | 0                     | 17,348                     | 17,348  | 0                                         | 91,050,177     |
| 1988             | 614,224                                | 62,431,147                                                      | 498,461                                        | 75,672,007    | 0                          | 0                     | 17,350                     | 17,350  | 0                                         | 93,144,185     |
| 1989             | 617,963                                | 62,774,359                                                      | 501,420                                        | 76,091,636    | 0                          | 0                     | 17,353                     | 17,353  | 0                                         | 94,367,142     |
| 1990             | 629,735                                | 63,740,269                                                      | 509,405                                        | 77,340,143    | 0                          | 0                     | 17,355                     | 17,355  | 0                                         | 96,097,445     |
| 1991             | 642,915                                | 64,654,870                                                      | 515,984                                        | 78,522,006    | 0                          | 0                     | 17,358                     | 17,358  | 0                                         | 97,670,947     |
| 1992             | 660,417                                | 65,753,514                                                      | 522,988                                        | 79,946,261    | 0                          | 0                     | 17,361                     | 17,361  | 0                                         | 99,400,146     |
| 1993             | 679,128                                | 66,881,843                                                      | 529,216                                        | 81,371,717    | 0                          | 0                     | 17,363                     | 17,363  | 0                                         | 101,101,234    |
| 1994             | 713,838                                | 68,462,914                                                      | 534,886                                        | 83,373,145    | 0                          | 0                     | 17,365                     | 17,365  | 0                                         | 103,870,679    |
| 1995             | 735,201                                | 69,349,548                                                      | 537,642                                        | 84,519,627    | 0                          | 0                     | 17,366                     | 17,366  | 0                                         | 107,795,145    |
| 1996             | 753,283                                | 70,226,791                                                      | 541,582                                        | 85,636,436    | 0                          | 0                     | 17,366                     | 17,366  | 0                                         | 117,756,635    |
| 1997             | 813,864                                | 71,506,285                                                      | 544,296                                        | 87,314,718    | 0                          | 0                     | 17,366                     | 17,366  | 0                                         | 128,020,700    |
| 1998             | 924,386                                | 72,258,544                                                      | 548,317                                        | 88,944,285    | 0                          | 0                     | 17,366                     | 17,366  | 0                                         | 131,738,189    |
| 1999             | 1,112,635                              | 72,889,545                                                      | 551,983                                        | 90,028,440    | 0                          | 0                     | 17,366                     | 17,366  | 0                                         | 133,483,962    |
| 2000             | 1,461,010                              | 73,400,470                                                      | 555,112                                        | 92,473,372    | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 136,078,258    |
| 2001             | 2,437,980                              | 73,709,810                                                      | 556,488                                        | 94,585,863    | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 139,053,526    |
| 2002             | 3,871,429                              | 73,880,967                                                      | 557,223                                        | 97,360,648    | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 141,994,884    |
| 2003             | 4,575,059                              | 74,190,253                                                      | 559,250                                        | 98,977,868    | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 144,156,226    |
| 2004             | 4,854,707                              | 74,420,558                                                      | 558,950                                        | 99,764,440    | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 145,380,154    |
| 2005             | 4,999,448                              | 68,308,736                                                      | 559,705                                        | 100,303,866   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 146,566,415    |
| 2006             | 5,050,938                              | 68,640,735                                                      | 561,781                                        | 100,829,652   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 147,574,592    |
| 2007             | 5,144,935                              | 69,389,059                                                      | 567,117                                        | 102,015,691   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 149,541,107    |
| 2008             | 5,158,843                              | 71,435,700                                                      | 576,875                                        | 104,720,577   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 153,286,469    |
| 2009             | 5,168,725                              | 74,090,116                                                      | 588,571                                        | 108,402,005   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 157,883,419    |
| 2010             | 5,170,349                              | 74,447,933                                                      | 592,832                                        | 108,821,066   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 158,354,354    |
| 2011             | 5,172,007                              | 74,588,576                                                      | 594,093                                        | 109,007,405   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 158,593,665    |
| 2012             | 5,173,702                              | 74,716,314                                                      | 595,162                                        | 109,180,667   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 158,821,099    |
| 2013             | 5,165,553                              | 74,095,931                                                      | 595,162                                        | 108,370,476   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 157,367,169    |
| 2014             | 5,160,499                              | 73,582,068                                                      | 585,787                                        | 107,610,219   | 0                          | 0                     | 17,367                     | 17,367  | 0                                         | 156,275,513    |
| 2015             | 5,151,843                              | 72,713,673                                                      | 577,401                                        | 106,453,931   | 0                          | 0                     | 16,962                     | 16,962  | 0                                         | 154,487,054    |
| 2016             | 5,135,750                              | 71,086,870                                                      | 561,747                                        | 104,302,264   | 0                          | 0                     | 16,802                     | 16,802  | 0                                         | 151,963,317    |
| 2017             | 5,102,443                              | 67,495,033                                                      | 527,028                                        | 99,593,153    | 0                          | 0                     | 16,805                     | 16,805  | 0                                         | 146,777,490    |
| 2018             | 5,053,646                              | 61,131,002                                                      | 461,906                                        | 91,554,187    | 0                          | 0                     | 16,802                     | 16,802  | 0                                         | 138,078,385    |
| 2019             | 4,986,703                              | 54,011,793                                                      | 392,628                                        | 82,345,011    | 0                          | 0                     | 14,177                     | 14,177  | 0                                         | 128,452,987    |
| 2020             | 4,898,780                              | 47,352,292                                                      | 337,385                                        | 73,304,201    | 0                          | 0                     | 2,251                      | 2,251   | 0                                         | 119,259,123    |
| 2021             | 4,788,799                              | 39,686,903                                                      | 278,955                                        | 62,876,159    | 0                          | 0                     | 1,425                      | 1,425   | 0                                         | 108,779,347    |
| 2022             | 4,725,790                              | 33,513,981                                                      | 241,339                                        | 54,515,515    | 0                          | 0                     | 40                         | 40      | 0                                         | 100,392,854    |
| 2023             | 4,703,667                              | 32,040,758                                                      | 237,934                                        | 51,912,798    | 0                          | 0                     | 39                         | 39      | 0                                         | 97,741,782     |
| 2024             | 4,690,597                              | 30,137,849                                                      | 223,168                                        | 49,630,313    | 0                          | 0                     | 38                         | 38      | 0                                         | 95,443,986     |
| 2025             | 4,677,138                              | 29,287,218                                                      | 218,771                                        | 48,431,139    | 0                          | 0                     | 36                         | 36      | 0                                         | 94,216,865     |
| 2026             | 4,664,214                              | 28,539,731                                                      | 214,495                                        | 47,378,289    | 0                          | 0                     | 34                         | 34      | 0                                         | 93,143,305     |
| 2027             | 4,656,126                              | 27,926,950                                                      | 210,187                                        | 46,544,862    | 0                          | 0                     | 32                         | 32      | 0                                         | 92,279,700     |
| 2028             | 4,651,212                              | 27,363,438                                                      | 204,544                                        | 45,832,851    | 0                          | 0                     | 30                         | 30      | 0                                         | 91,523,023     |
| 2029             | 4,647,691                              | 26,590,172                                                      | 195,640                                        | 44,911,103    | 0                          | 0                     | 29                         | 29      | 0                                         | 90,564,768     |
| 2030             | 4,644,288                              | 25,207,056                                                      | 178,158                                        | 43,336,217    | 0                          | 0                     | 27                         | 27      | 0                                         | 88,940,291     |
| 2031             | 4,627,089                              | 22,296,272                                                      | 145,493                                        | 39,746,969    | 0                          | 0                     | 26                         | 26      | 0                                         | 85,232,141     |
| 2032             | 4,628,431                              | 21,491,934                                                      | 134,075                                        | 38,924,967    | 0                          | 0                     | 24                         | 24      | 0                                         | 84,393,309     |
| 2033             | 4,616,273                              | 19,990,297                                                      | 117,981                                        | 36,986,240    | 0                          | 0                     | 24                         | 24      | 0                                         | 82,369,508     |
| 2034             | 4,598,055                              | 18,813,667                                                      | 108,453                                        | 35,273,279    | 0                          | 0                     | 23                         | 23      | 0                                         | 80,456,318     |
| 2035             | 4,584,801                              | 18,058,646                                                      | 103,201                                        | 34,134,140    | 0                          | 0                     | 21                         | 21      | 0                                         | 78,966,677     |
| TOTAL            | 187,338,078                            | 3,661,005,978                                                   | 28,439,483                                     | 4,959,620,785 | 0                          | 0                     | 868,230                    | 868,230 | 0                                         | 7,132,665,096  |

**TABLE B-16A. Minimum OMP&R Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                        |             | SOUTH BAY AREA                         |                                        |                                            |             | CENTRAL COASTAL AREA                   |                                      |             |
|------------------|--------------------------|------------------------|-------------|----------------------------------------|----------------------------------------|--------------------------------------------|-------------|----------------------------------------|--------------------------------------|-------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total       | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total       | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total       |
|                  | [1]                      | [2]                    | [3]         | [4]                                    | [5]                                    | [6]                                        | [7]         | [8]                                    | [9]                                  | [10]        |
| 1961             | 0                        | 0                      | 0           | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| 1962             | 0                        | 0                      | 0           | 9,699                                  | 8,868                                  | 21,132                                     | 39,699      | 0                                      | 0                                    | 0           |
| 1963             | 0                        | 0                      | 0           | 38,048                                 | 34,788                                 | 82,896                                     | 155,732     | 0                                      | 0                                    | 0           |
| 1964             | 0                        | 0                      | 0           | 41,148                                 | 38,323                                 | 91,320                                     | 170,791     | 0                                      | 0                                    | 0           |
| 1965             | 0                        | 0                      | 0           | 78,529                                 | 75,616                                 | 195,793                                    | 349,938     | 0                                      | 0                                    | 0           |
| 1966             | 0                        | 0                      | 0           | 79,753                                 | 78,779                                 | 218,543                                    | 377,075     | 0                                      | 0                                    | 0           |
| 1967             | 0                        | 0                      | 0           | 127,896                                | 123,667                                | 335,224                                    | 586,787     | 0                                      | 0                                    | 0           |
| 1968             | 130                      | 0                      | 130         | 126,058                                | 120,563                                | 333,506                                    | 580,127     | 11,800                                 | 21,770                               | 33,570      |
| 1969             | 80,875                   | 0                      | 80,875      | 145,411                                | 138,050                                | 372,585                                    | 656,046     | 63,113                                 | 116,435                              | 179,548     |
| 1970             | 94,872                   | 0                      | 94,872      | 128,993                                | 120,245                                | 320,664                                    | 569,902     | 74,187                                 | 136,867                              | 211,054     |
| 1971             | 45,579                   | 0                      | 45,579      | 113,071                                | 108,346                                | 296,004                                    | 517,421     | 74,011                                 | 136,541                              | 210,552     |
| 1972             | 37,895                   | 0                      | 37,895      | 122,407                                | 117,483                                | 334,366                                    | 574,256     | 79,196                                 | 146,107                              | 225,303     |
| 1973             | 32,993                   | 0                      | 32,993      | 122,738                                | 116,785                                | 325,726                                    | 565,249     | 75,714                                 | 139,683                              | 215,397     |
| 1974             | 46,498                   | 0                      | 46,498      | 154,435                                | 146,929                                | 403,080                                    | 704,444     | 76,530                                 | 141,189                              | 217,719     |
| 1975             | 37,707                   | 0                      | 37,707      | 189,175                                | 182,087                                | 513,823                                    | 885,085     | 92,605                                 | 170,845                              | 263,450     |
| 1976             | 60,786                   | 0                      | 60,786      | 203,064                                | 193,435                                | 524,813                                    | 921,312     | 94,935                                 | 175,144                              | 270,079     |
| 1977             | 78,400                   | 0                      | 78,400      | 179,869                                | 169,065                                | 500,101                                    | 849,035     | 102,945                                | 189,922                              | 292,867     |
| 1978             | 56,318                   | 0                      | 56,318      | 239,301                                | 228,855                                | 647,828                                    | 1,115,984   | 104,060                                | 191,978                              | 296,038     |
| 1979             | 73,852                   | 0                      | 73,852      | 236,986                                | 232,105                                | 666,742                                    | 1,135,833   | 100,748                                | 185,868                              | 286,616     |
| 1980             | 81,769                   | 0                      | 81,769      | 389,575                                | 372,185                                | 1,010,830                                  | 1,772,590   | 126,328                                | 233,105                              | 359,433     |
| 1981             | 101,340                  | 0                      | 101,340     | 317,408                                | 302,272                                | 834,257                                    | 1,453,937   | 140,208                                | 258,712                              | 398,920     |
| 1982             | 191,987                  | 0                      | 191,987     | 386,742                                | 369,633                                | 1,098,844                                  | 1,855,219   | 142,045                                | 262,101                              | 404,146     |
| 1983             | 80,215                   | 0                      | 80,215      | 438,536                                | 428,973                                | 1,269,373                                  | 2,136,882   | 171,001                                | 315,523                              | 486,524     |
| 1984             | 106,485                  | 0                      | 106,485     | 591,243                                | 565,721                                | 1,817,629                                  | 2,974,593   | 201,768                                | 372,284                              | 574,052     |
| 1985             | 215,341                  | 0                      | 215,341     | 674,975                                | 655,490                                | 1,840,211                                  | 3,170,676   | 242,935                                | 448,233                              | 691,168     |
| 1986             | 203,704                  | 0                      | 203,704     | 613,273                                | 583,077                                | 1,784,056                                  | 2,980,406   | 233,000                                | 429,904                              | 662,904     |
| 1987             | 295,505                  | 0                      | 295,505     | 687,629                                | 652,468                                | 2,000,817                                  | 3,340,914   | 230,484                                | 463,838                              | 694,322     |
| 1988             | 312,677                  | (58)                   | 312,619     | 676,847                                | 655,274                                | 1,910,092                                  | 3,242,213   | 258,807                                | 561,030                              | 819,837     |
| 1989             | 403,330                  | 688,185                | 1,091,515   | 716,831                                | 712,354                                | 1,897,149                                  | 3,326,334   | 244,772                                | 668,476                              | 913,248     |
| 1990             | 658,942                  | 674,944                | 1,333,886   | 782,589                                | 780,305                                | 2,129,966                                  | 3,692,860   | 310,222                                | 677,025                              | 987,247     |
| 1991             | 726,717                  | 860,903                | 1,587,620   | 543,178                                | 524,741                                | 1,520,569                                  | 2,588,488   | 302,369                                | 673,858                              | 976,227     |
| 1992             | 483,580                  | 712,313                | 1,195,893   | 796,058                                | 855,050                                | 2,253,496                                  | 3,904,604   | 346,220                                | 736,477                              | 1,082,697   |
| 1993             | 524,000                  | 708,129                | 1,232,129   | 1,280,736                              | 1,261,431                              | 3,338,742                                  | 5,880,909   | 386,060                                | 734,138                              | 1,120,198   |
| 1994             | 573,815                  | 658,277                | 1,232,092   | 1,368,651                              | 1,312,740                              | 3,560,294                                  | 6,241,685   | 481,022                                | 888,288                              | 1,369,310   |
| 1995             | 539,407                  | 660,770                | 1,200,177   | 1,232,272                              | 1,187,201                              | 3,216,470                                  | 5,635,943   | 477,929                                | 881,323                              | 1,359,252   |
| 1996             | 604,992                  | 1,011,298              | 1,616,290   | 1,185,220                              | 1,124,968                              | 3,007,330                                  | 5,317,518   | 649,161                                | 1,197,179                            | 1,846,340   |
| 1997             | 563,579                  | 741,881                | 1,305,460   | 1,029,670                              | 968,999                                | 2,667,649                                  | 4,666,318   | 406,652                                | 749,805                              | 1,156,457   |
| 1998             | 461,929                  | 661,478                | 1,123,407   | 1,064,804                              | 1,174,966                              | 3,502,898                                  | 5,742,668   | 730,074                                | 2,963,766                            | 3,773,944   |
| 1999             | 605,754                  | 993,840                | 1,599,594   | 1,221,279                              | 1,262,915                              | 5,074,641                                  | 7,558,835   | 793,094                                | 3,042,686                            | 3,835,780   |
| 2000             | 776,091                  | 1,492,976              | 2,269,067   | 2,174,362                              | 1,295,738                              | 3,755,201                                  | 7,225,301   | 714,603                                | 3,446,638                            | 4,161,241   |
| 2001             | 650,709                  | 1,442,691              | 2,093,400   | 2,031,962                              | 1,037,198                              | 3,542,165                                  | 6,611,325   | 732,910                                | 3,127,544                            | 3,860,454   |
| 2002             | 1,097,797                | 1,872,282              | 2,970,079   | 2,451,182                              | 1,358,411                              | 6,061,824                                  | 9,871,417   | 770,413                                | 3,588,248                            | 4,358,661   |
| 2003             | 1,168,105                | 2,246,243              | 3,414,348   | 2,255,838                              | 1,056,691                              | 3,546,786                                  | 6,859,315   | 816,900                                | 3,745,271                            | 4,562,171   |
| 2004             | 1,618,445                | 2,345,386              | 3,963,831   | 2,583,387                              | 1,278,759                              | 3,533,253                                  | 7,395,399   | 821,144                                | 3,751,765                            | 4,572,909   |
| 2005             | 917,325                  | 1,801,406              | 2,718,731   | 2,396,749                              | 1,132,232                              | 2,953,491                                  | 6,482,472   | 878,460                                | 4,206,062                            | 5,084,522   |
| 2006             | 1,256,135                | 2,187,625              | 3,443,760   | 2,510,725                              | 1,184,819                              | 3,442,338                                  | 7,137,882   | 871,307                                | 4,057,667                            | 4,928,974   |
| 2007             | 1,311,373                | 2,281,548              | 3,592,921   | 2,275,851                              | 1,275,964                              | 3,714,055                                  | 7,715,870   | 903,832                                | 4,197,826                            | 5,101,658   |
| 2008             | 1,344,867                | 2,339,566              | 3,684,433   | 2,821,795                              | 1,319,240                              | 3,858,521                                  | 7,999,556   | 922,744                                | 4,353,138                            | 5,275,882   |
| 2009             | 820,615                  | 1,344,204              | 2,164,819   | 2,683,059                              | 1,302,918                              | 3,631,480                                  | 7,617,457   | 743,922                                | 2,761,942                            | 3,505,864   |
| 2010             | 820,489                  | 1,343,879              | 2,164,368   | 2,682,874                              | 1,302,916                              | 3,631,526                                  | 7,617,316   | 743,836                                | 2,761,491                            | 3,505,327   |
| 2011             | 823,419                  | 1,348,980              | 2,172,399   | 2,693,598                              | 1,307,630                              | 3,644,624                                  | 7,645,852   | 746,443                                | 2,770,518                            | 3,516,961   |
| 2012             | 823,611                  | 1,349,332              | 2,172,943   | 2,694,148                              | 1,307,873                              | 3,645,284                                  | 7,647,305   | 746,605                                | 2,771,171                            | 3,517,776   |
| 2013             | 824,121                  | 1,350,394              | 2,174,515   | 2,695,297                              | 1,308,255                              | 3,646,248                                  | 7,649,800   | 746,995                                | 2,772,915                            | 3,519,910   |
| 2014             | 824,368                  | 1,351,165              | 2,175,533   | 2,695,377                              | 1,308,014                              | 3,645,404                                  | 7,648,795   | 747,127                                | 2,773,829                            | 3,520,956   |
| 2015             | 824,986                  | 1,352,171              | 2,177,157   | 2,697,367                              | 1,308,998                              | 3,648,161                                  | 7,654,526   | 747,676                                | 2,775,886                            | 3,523,562   |
| 2016             | 823,950                  | 1,350,379              | 2,174,329   | 2,694,239                              | 1,307,533                              | 3,644,106                                  | 7,645,878   | 746,781                                | 2,772,407                            | 3,519,188   |
| 2017             | 824,366                  | 1,351,122              | 2,175,488   | 2,695,452                              | 1,308,083                              | 3,645,618                                  | 7,649,153   | 747,135                                | 2,773,809                            | 3,520,944   |
| 2018             | 824,963                  | 1,352,369              | 2,177,332   | 2,696,804                              | 1,308,534                              | 3,646,751                                  | 7,652,089   | 747,594                                | 2,775,856                            | 3,523,450   |
| 2019             | 823,881                  | 1,350,429              | 2,174,310   | 2,693,686                              | 1,307,133                              | 3,642,912                                  | 7,643,731   | 746,679                                | 2,772,212                            | 3,518,891   |
| 2020             | 824,615                  | 1,351,567              | 2,176,182   | 2,696,150                              | 1,308,392                              | 3,646,465                                  | 7,651,007   | 747,342                                | 2,774,640                            | 3,521,982   |
| 2021             | 825,016                  | 1,352,105              | 2,177,121   | 2,697,660                              | 1,309,226                              | 3,648,850                                  | 7,655,736   | 747,724                                | 2,775,945                            | 3,523,669   |
| 2022             | 824,782                  | 1,352,045              | 2,176,827   | 2,696,283                              | 1,308,301                              | 3,646,113                                  | 7,650,697   | 747,441                                | 2,775,246                            | 3,522,687   |
| 2023             | 824,015                  | 1,350,460              | 2,174,475   | 2,694,481                              | 1,307,669                              | 3,644,495                                  | 7,646,645   | 746,841                                | 2,772,609                            | 3,519,450   |
| 2024             | 824,321                  | 1,351,124              | 2,175,445   | 2,695,140                              | 1,307,867                              | 3,644,975                                  | 7,647,982   | 747,074                                | 2,773,670                            | 3,520,744   |
| 2025             | 825,181                  | 1,352,492              | 2,177,673   | 2,697,955                              | 1,309,280                              | 3,648,948                                  | 7,656,183   | 747,842                                | 2,776,524                            | 3,524,366   |
| 2026             | 823,643                  | 1,350,034              | 2,173,677   | 2,692,935                              | 1,306,768                              | 3,641,891                                  | 7,641,594   | 746,469                                | 2,771,418                            | 3,517,887   |
| 2027             | 826,304                  | 1,354,301              | 2,180,605   | 2,701,588                              | 1,311,086                              | 3,654,012                                  | 7,666,686   | 748,840                                | 2,780,253                            | 3,529,093   |
| 2028             | 823,561                  | 1,349,965              | 2,173,526   | 2,692,540                              | 1,306,523                              | 3,641,176                                  | 7,640,239   | 746,380                                | 2,771,157                            | 3,517,537   |
| 2029             | 824,666                  | 1,351,596              | 2,176,262   | 2,696,423                              | 1,308,569                              | 3,646,983                                  | 7,651,975   | 747,401                                | 2,774,801                            | 3,522,202   |
| 2030             | 823,880                  | 1,350,220              | 2,174,100   | 2,694,090                              | 1,307,492                              | 3,644,009                                  | 7,645,591   | 746,728                                | 2,772,160                            | 3,518,888   |
| 2031             | 826,545                  | 1,354,907              | 2,181,452   | 2,701,934                              | 1,311,090                              | 3,653,925                                  | 7,666,949   | 748,999                                | 2,781,099                            | 3,530,098   |
| 2032             | 823,095                  | 1,349,222              | 2,172,317   | 2,691,025                              | 1,305,765                              | 3,639,048                                  | 7,635,838   | 745,966                                | 2,769,615                            | 3,515,581   |
| 2033             | 824,776                  | 1,351,653              | 2,176,429   | 2,697,012                              | 1,308,953                              | 3,648,114                                  | 7,654,079   | 747,527                                | 2,775,131                            | 3,522,658   |
| 2034             | 824,912                  | 1,352,084              | 2,176,996   | 2,697,047                              | 1,308,811                              | 3,647,621                                  | 7,653,479   | 747,599                                | 2,775,641                            | 3,523,240   |
| 2035             | 823,211                  | 1,349,399              | 2,172,610   | 2,691,421                              | 1,305,970                              | 3,639,625                                  | 7,637,016   | 746,071                                | 2,769,998                            | 3,516,069   |
| TOTAL            | 40,773,112               | 62,849,281             | 103,622,393 | 113,041,533                            | 64,233,453                             | 184,735,457                                | 362,010,443 | 35,503,449                             | 127,656,202                          | 163,159,651 |

**TABLE B-16A. Minimum OMP&R Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |              |                       |                               |                                                   |             |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|--------------|-----------------------|-------------------------------|---------------------------------------------------|-------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |              | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total       |
|                  |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Agricultural |                       |                               |                                                   |             |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]         | [16]                  | [17]                          | [18]                                              | [19]        |
| 1961             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1962             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1963             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1964             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1965             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1966             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1967             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1968             | 37,806                               | 1,963                                         | 5,639                                         | 60,701                         | 678,086      | 2,008                 | 2,073                         | 77,591                                            | 865,867     |
| 1969             | 45,479                               | 2,235                                         | 30,158                                        | 80,554                         | 1,197,126    | 2,286                 | 2,085                         | 90,773                                            | 1,450,696   |
| 1970             | 46,969                               | 2,292                                         | 35,450                                        | 96,673                         | 1,381,493    | 2,344                 | 2,158                         | 93,408                                            | 1,660,787   |
| 1971             | 47,997                               | 2,314                                         | 35,366                                        | 106,654                        | 1,643,163    | 2,366                 | 2,288                         | 94,874                                            | 1,935,022   |
| 1972             | 49,866                               | 2,414                                         | 37,844                                        | 122,313                        | 1,729,169    | 2,469                 | 2,254                         | 98,777                                            | 2,045,106   |
| 1973             | 50,006                               | 2,385                                         | 36,180                                        | 125,553                        | 1,719,873    | 2,440                 | 2,310                         | 98,330                                            | 2,037,077   |
| 1974             | 52,818                               | 2,556                                         | 36,570                                        | 135,661                        | 1,823,065    | 2,614                 | 2,529                         | 104,609                                           | 2,160,422   |
| 1975             | 66,963                               | 3,243                                         | 44,251                                        | 162,738                        | 2,235,242    | 3,317                 | 3,191                         | 132,663                                           | 2,651,608   |
| 1976             | 66,504                               | 3,328                                         | 45,364                                        | 159,303                        | 2,215,999    | 3,404                 | 2,919                         | 133,940                                           | 2,630,761   |
| 1977             | 75,595                               | 3,812                                         | 49,192                                        | 189,661                        | 2,522,290    | 3,898                 | 3,708                         | 152,838                                           | 3,000,994   |
| 1978             | 70,688                               | 3,503                                         | 49,725                                        | 174,897                        | 2,427,163    | 3,583                 | 3,644                         | 141,672                                           | 2,874,875   |
| 1979             | 68,879                               | 3,436                                         | 48,142                                        | 173,677                        | 2,378,315    | 3,514                 | 3,492                         | 138,493                                           | 2,817,948   |
| 1980             | 95,898                               | 4,722                                         | 59,551                                        | 235,741                        | 3,146,570    | 4,830                 | 4,777                         | 191,582                                           | 3,743,671   |
| 1981             | 118,448                              | 5,965                                         | 66,183                                        | 266,353                        | 3,440,557    | 6,099                 | 5,187                         | 239,323                                           | 4,148,115   |
| 1982             | 134,083                              | 6,711                                         | 67,061                                        | 311,879                        | 3,848,922    | 6,862                 | 6,382                         | 270,061                                           | 4,651,961   |
| 1983             | 184,902                              | 9,242                                         | 80,869                                        | 426,485                        | 5,030,031    | 9,450                 | 8,494                         | 372,182                                           | 6,121,655   |
| 1984             | 194,228                              | 9,656                                         | 95,555                                        | 471,854                        | 5,636,134    | 9,874                 | 8,719                         | 389,892                                           | 6,815,912   |
| 1985             | 200,694                              | 9,957                                         | 115,227                                       | 486,162                        | 6,042,593    | 10,182                | 8,982                         | 402,457                                           | 7,276,254   |
| 1986             | 207,028                              | 10,302                                        | 110,479                                       | 530,803                        | 6,372,710    | 10,536                | 10,341                        | 415,776                                           | 7,667,975   |
| 1987             | 205,002                              | 10,259                                        | 109,401                                       | 533,451                        | 6,378,437    | 10,493                | 10,517                        | 412,889                                           | 7,670,449   |
| 1988             | 203,711                              | 10,223                                        | 122,903                                       | 516,432                        | 6,388,497    | 10,455                | 10,341                        | 410,868                                           | 7,673,430   |
| 1989             | 224,049                              | 11,269                                        | 116,197                                       | 564,169                        | 6,747,046    | 11,526                | 11,102                        | 452,406                                           | 8,137,764   |
| 1990             | 271,051                              | 13,666                                        | 148,238                                       | 664,040                        | 8,111,616    | 13,976                | 13,206                        | 547,974                                           | 9,783,767   |
| 1991             | 275,748                              | 13,854                                        | 144,486                                       | 662,755                        | 8,111,610    | 14,168                | 13,218                        | 556,474                                           | 9,792,313   |
| 1992             | 317,889                              | 16,027                                        | 162,466                                       | 764,224                        | 9,115,453    | 16,393                | 18,209                        | 642,672                                           | 11,053,333  |
| 1993             | 359,879                              | 17,989                                        | 184,477                                       | 831,662                        | 10,372,245   | 18,399                | 19,560                        | 724,397                                           | 12,528,608  |
| 1994             | 309,099                              | 15,487                                        | 224,254                                       | 738,622                        | 9,789,905    | 15,840                | 16,434                        | 622,912                                           | 11,732,553  |
| 1995             | 395,441                              | 19,918                                        | 220,899                                       | 898,339                        | 11,190,121   | 20,373                | 21,551                        | 799,070                                           | 13,565,712  |
| 1996             | 392,055                              | 19,968                                        | 301,835                                       | 902,162                        | 12,199,788   | 20,424                | 21,664                        | 796,711                                           | 14,654,607  |
| 1997             | 396,222                              | 20,154                                        | 186,450                                       | 942,987                        | 10,974,350   | 20,613                | 19,344                        | 806,084                                           | 13,366,204  |
| 1998             | 489,209                              | 24,563                                        | 288,941                                       | 1,098,326                      | 12,675,458   | 25,125                | 21,596                        | 995,325                                           | 15,618,553  |
| 1999             | 409,335                              | 20,884                                        | 272,299                                       | 963,313                        | 11,345,079   | 21,360                | 21,509                        | 832,557                                           | 13,886,336  |
| 2000             | 414,557                              | 21,089                                        | 207,531                                       | 1,020,792                      | 10,386,585   | 21,569                | 22,694                        | 841,923                                           | 12,936,740  |
| 2001             | 499,979                              | 25,444                                        | 231,676                                       | 1,208,436                      | 11,751,169   | 26,023                | 31,679                        | 1,015,604                                         | 14,790,010  |
| 2002             | 457,889                              | 21,551                                        | 224,731                                       | 1,079,700                      | 10,693,217   | 22,041                | 25,564                        | 812,862                                           | 13,337,555  |
| 2003             | 529,663                              | 25,088                                        | 242,320                                       | 1,173,085                      | 11,744,825   | 25,660                | 30,579                        | 940,416                                           | 14,711,636  |
| 2004             | 486,184                              | 23,155                                        | 246,564                                       | 1,139,332                      | 11,300,426   | 63,079                | 25,920                        | 748,385                                           | 14,033,045  |
| 2005             | 457,614                              | 21,856                                        | 259,209                                       | 1,009,776                      | 10,750,554   | 59,437                | 24,302                        | 705,662                                           | 13,288,410  |
| 2006             | 512,780                              | 24,420                                        | 258,532                                       | 1,170,293                      | 11,786,416   | 75,629                | 27,010                        | 786,760                                           | 14,641,840  |
| 2007             | 544,467                              | 25,943                                        | 269,257                                       | 1,227,111                      | 12,416,935   | 80,132                | 28,623                        | 835,647                                           | 15,428,115  |
| 2008             | 579,116                              | 27,611                                        | 280,315                                       | 1,204,684                      | 13,090,546   | 85,037                | 30,298                        | 889,177                                           | 16,186,784  |
| 2009             | 429,519                              | 19,884                                        | 261,723                                       | 972,167                        | 10,717,619   | 64,350                | 22,707                        | 647,384                                           | 13,135,353  |
| 2010             | 429,406                              | 19,879                                        | 261,689                                       | 971,939                        | 10,715,267   | 64,334                | 22,705                        | 647,215                                           | 13,132,434  |
| 2011             | 431,271                              | 19,965                                        | 262,671                                       | 975,864                        | 10,758,692   | 64,608                | 22,781                        | 650,031                                           | 13,185,883  |
| 2012             | 431,371                              | 19,970                                        | 262,729                                       | 976,094                        | 10,761,201   | 64,623                | 22,785                        | 650,181                                           | 13,188,954  |
| 2013             | 431,706                              | 19,985                                        | 262,873                                       | 976,815                        | 10,768,830   | 64,671                | 22,794                        | 650,682                                           | 13,198,356  |
| 2014             | 431,997                              | 19,998                                        | 262,932                                       | 977,374                        | 10,774,432   | 64,710                | 22,798                        | 651,117                                           | 13,205,358  |
| 2015             | 432,256                              | 20,010                                        | 263,123                                       | 978,010                        | 10,781,554   | 64,750                | 22,810                        | 651,504                                           | 13,214,017  |
| 2016             | 431,768                              | 19,988                                        | 262,808                                       | 976,855                        | 10,768,811   | 64,677                | 22,790                        | 650,773                                           | 13,198,470  |
| 2017             | 431,975                              | 19,997                                        | 262,934                                       | 977,337                        | 10,774,095   | 64,708                | 22,798                        | 651,084                                           | 13,204,928  |
| 2018             | 432,369                              | 20,015                                        | 263,103                                       | 978,183                        | 10,783,051   | 64,764                | 22,809                        | 651,672                                           | 13,215,966  |
| 2019             | 431,822                              | 19,990                                        | 262,779                                       | 976,918                        | 10,769,228   | 64,683                | 22,788                        | 650,855                                           | 13,199,063  |
| 2020             | 432,102                              | 20,003                                        | 263,007                                       | 977,628                        | 10,777,270   | 64,726                | 22,803                        | 651,273                                           | 13,208,812  |
| 2021             | 432,211                              | 20,008                                        | 263,135                                       | 977,946                        | 10,781,027   | 64,745                | 22,811                        | 651,437                                           | 13,213,320  |
| 2022             | 432,276                              | 20,011                                        | 263,049                                       | 977,969                        | 10,780,720   | 64,750                | 22,805                        | 651,534                                           | 13,213,114  |
| 2023             | 431,782                              | 19,988                                        | 262,828                                       | 976,900                        | 10,769,356   | 64,679                | 22,791                        | 650,795                                           | 13,199,119  |
| 2024             | 431,996                              | 19,998                                        | 262,915                                       | 977,355                        | 10,774,152   | 64,710                | 22,797                        | 651,116                                           | 13,205,039  |
| 2025             | 432,341                              | 20,014                                        | 263,181                                       | 978,214                        | 10,783,817   | 64,763                | 22,814                        | 651,631                                           | 13,216,775  |
| 2026             | 431,719                              | 19,986                                        | 262,706                                       | 976,667                        | 10,766,430   | 64,667                | 22,783                        | 650,700                                           | 13,195,658  |
| 2027             | 432,804                              | 20,035                                        | 263,526                                       | 979,358                        | 10,796,647   | 64,834                | 22,836                        | 652,324                                           | 13,232,364  |
| 2028             | 431,717                              | 19,985                                        | 262,677                                       | 976,636                        | 10,765,959   | 64,666                | 22,781                        | 650,697                                           | 13,195,118  |
| 2029             | 432,095                              | 20,003                                        | 263,025                                       | 977,636                        | 10,777,454   | 64,726                | 22,804                        | 651,264                                           | 13,209,007  |
| 2030             | 431,716                              | 19,985                                        | 262,788                                       | 976,746                        | 10,767,665   | 64,669                | 22,789                        | 650,696                                           | 13,197,054  |
| 2031             | 433,015                              | 20,045                                        | 263,590                                       | 979,784                        | 10,801,028   | 64,864                | 22,840                        | 652,640                                           | 13,237,806  |
| 2032             | 431,528                              | 19,977                                        | 262,534                                       | 976,167                        | 10,760,690   | 64,637                | 22,772                        | 650,415                                           | 13,188,720  |
| 2033             | 432,079                              | 20,002                                        | 263,065                                       | 977,648                        | 10,777,812   | 64,726                | 22,806                        | 651,240                                           | 13,209,378  |
| 2034             | 432,242                              | 20,010                                        | 263,097                                       | 977,961                        | 10,780,938   | 64,748                | 22,808                        | 651,484                                           | 13,213,288  |
| 2035             | 431,571                              | 19,979                                        | 262,570                                       | 976,277                        | 10,761,944   | 64,643                | 22,775                        | 650,479                                           | 13,190,238  |
| TOTAL            | 22,204,444                           | 1,060,164                                     | 12,848,844                                    | 51,009,811                     | 573,584,468  | 2,516,259             | 1,165,833                     | 37,388,239                                        | 701,778,062 |

**TABLE B-16A. Minimum OMP&R Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                         |                                    |                                          |                                                 |                           |                                               |                           |                               |                                                         |                                                      |
|------------------|--------------------------------------------------|------------------------------------|------------------------------------------|-------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|---------------------------------------------------------|------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water District |
|                  | [20]                                             | [21]                               | [22]                                     | [23]                                            | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                    | [29]                                                 |
| 1961             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1962             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1963             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1964             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1965             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1966             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1967             | 0                                                | 0                                  | 0                                        | 0                                               | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1968             | 65,074                                           | 28,085                             | 11,697                                   | 2,958                                           | 19,291                    | 1,089                                         | 24,380                    | 8,173                         | 52,315                                                  | 14,399                                               |
| 1969             | 86,339                                           | 70,342                             | 15,522                                   | 3,925                                           | 25,598                    | 1,445                                         | 32,348                    | 10,844                        | 69,419                                                  | 19,106                                               |
| 1970             | 107,807                                          | 84,577                             | 19,392                                   | 4,904                                           | 31,981                    | 1,804                                         | 40,391                    | 13,540                        | 86,727                                                  | 23,865                                               |
| 1971             | 178,820                                          | 105,979                            | 32,228                                   | 8,150                                           | 53,151                    | 2,992                                         | 66,999                    | 22,459                        | 144,136                                                 | 39,636                                               |
| 1972             | 363,555                                          | 202,625                            | 106,740                                  | 30,967                                          | 176,037                   | 6,601                                         | 213,032                   | 48,102                        | 548,123                                                 | 144,113                                              |
| 1973             | 404,661                                          | 222,765                            | 121,341                                  | 34,674                                          | 200,116                   | 7,346                                         | 243,320                   | 53,975                        | 724,535                                                 | 190,156                                              |
| 1974             | 434,868                                          | 235,528                            | 130,627                                  | 37,062                                          | 215,432                   | 7,677                                         | 262,735                   | 56,383                        | 786,107                                                 | 207,019                                              |
| 1975             | 504,791                                          | 289,501                            | 151,031                                  | 43,176                                          | 249,082                   | 9,082                                         | 303,108                   | 65,580                        | 905,424                                                 | 238,842                                              |
| 1976             | 559,013                                          | 262,420                            | 160,686                                  | 44,454                                          | 265,004                   | 10,030                                        | 325,512                   | 73,253                        | 964,524                                                 | 256,570                                              |
| 1977             | 675,504                                          | 335,749                            | 184,813                                  | 47,743                                          | 304,792                   | 11,980                                        | 381,161                   | 87,355                        | 1,069,446                                               | 289,793                                              |
| 1978             | 600,343                                          | 376,946                            | 187,028                                  | 54,156                                          | 308,449                   | 10,711                                        | 373,192                   | 78,304                        | 1,148,279                                               | 300,751                                              |
| 1979             | 661,123                                          | 349,072                            | 196,264                                  | 52,211                                          | 323,677                   | 12,124                                        | 401,469                   | 87,126                        | 1,125,452                                               | 302,508                                              |
| 1980             | 858,039                                          | 415,571                            | 253,090                                  | 71,921                                          | 417,398                   | 15,435                                        | 508,379                   | 112,853                       | 1,518,405                                               | 401,223                                              |
| 1981             | 1,001,503                                        | 511,087                            | 284,970                                  | 73,534                                          | 469,970                   | 18,046                                        | 588,024                   | 131,992                       | 1,548,350                                               | 420,523                                              |
| 1982             | 1,128,643                                        | 557,494                            | 320,938                                  | 89,560                                          | 529,292                   | 20,193                                        | 649,204                   | 148,012                       | 1,870,559                                               | 497,871                                              |
| 1983             | 1,744,932                                        | 832,687                            | 450,049                                  | 119,275                                         | 742,218                   | 30,643                                        | 922,072                   | 225,793                       | 2,373,149                                               | 639,682                                              |
| 1984             | 2,105,780                                        | 943,524                            | 548,784                                  | 150,179                                         | 905,055                   | 36,810                                        | 1,112,196                 | 271,187                       | 3,018,294                                               | 803,394                                              |
| 1985             | 2,157,936                                        | 1,055,744                          | 584,697                                  | 157,841                                         | 964,282                   | 38,972                                        | 1,191,309                 | 277,250                       | 3,230,403                                               | 860,780                                              |
| 1986             | 2,311,841                                        | 1,102,466                          | 618,750                                  | 162,748                                         | 1,020,438                 | 40,051                                        | 1,268,806                 | 295,987                       | 3,318,638                                               | 893,069                                              |
| 1987             | 2,366,343                                        | 1,032,918                          | 628,222                                  | 167,262                                         | 1,036,061                 | 41,773                                        | 1,283,836                 | 307,844                       | 3,400,838                                               | 913,933                                              |
| 1988             | 2,303,274                                        | 1,042,113                          | 649,276                                  | 175,694                                         | 1,070,784                 | 40,604                                        | 1,321,553                 | 298,438                       | 3,587,873                                               | 960,968                                              |
| 1989             | 2,280,051                                        | 1,088,176                          | 613,266                                  | 179,993                                         | 1,011,401                 | 39,501                                        | 1,240,888                 | 292,775                       | 3,499,964                                               | 932,519                                              |
| 1990             | 2,636,186                                        | 1,275,150                          | 708,829                                  | 201,242                                         | 1,169,006                 | 45,472                                        | 1,424,445                 | 336,069                       | 4,084,211                                               | 1,078,392                                            |
| 1991             | 2,737,441                                        | 1,454,172                          | 763,989                                  | 210,644                                         | 1,259,974                 | 48,936                                        | 1,546,583                 | 358,165                       | 4,348,900                                               | 1,150,633                                            |
| 1992             | 2,781,586                                        | 1,579,025                          | 750,248                                  | 198,232                                         | 1,237,307                 | 49,829                                        | 1,538,733                 | 362,844                       | 4,131,745                                               | 1,115,632                                            |
| 1993             | 3,109,819                                        | 1,689,775                          | 850,589                                  | 234,719                                         | 1,402,796                 | 56,125                                        | 1,722,415                 | 411,539                       | 5,023,595                                               | 1,338,111                                            |
| 1994             | 2,825,181                                        | 1,609,511                          | 795,078                                  | 225,270                                         | 1,311,244                 | 51,258                                        | 1,634,795                 | 376,175                       | 4,797,440                                               | 1,268,058                                            |
| 1995             | 3,121,440                                        | 1,720,649                          | 848,101                                  | 231,718                                         | 1,398,686                 | 58,749                                        | 1,766,297                 | 444,998                       | 4,828,432                                               | 1,272,345                                            |
| 1996             | 3,093,678                                        | 1,966,634                          | 862,720                                  | 228,008                                         | 1,422,789                 | 56,813                                        | 1,817,427                 | 423,444                       | 4,707,473                                               | 1,256,549                                            |
| 1997             | 3,250,394                                        | 1,810,292                          | 918,428                                  | 281,067                                         | 1,514,687                 | 59,547                                        | 1,853,224                 | 446,127                       | 5,705,741                                               | 1,477,757                                            |
| 1998             | 3,876,893                                        | 2,050,491                          | 1,070,620                                | 299,667                                         | 1,765,661                 | 73,841                                        | 3,208,176                 | 561,294                       | 6,077,011                                               | 1,635,115                                            |
| 1999             | 3,757,844                                        | 2,077,696                          | 1,097,945                                | 308,176                                         | 1,810,727                 | 74,274                                        | 3,177,408                 | 538,581                       | 6,389,002                                               | 1,718,172                                            |
| 2000             | 3,753,245                                        | 3,381,437                          | 1,035,666                                | 291,684                                         | 1,708,021                 | 68,473                                        | 3,000,250                 | 594,938                       | 5,873,262                                               | 1,571,225                                            |
| 2001             | 4,457,941                                        | 3,768,942                          | 1,110,674                                | 297,870                                         | 1,831,713                 | 80,824                                        | 3,284,565                 | 699,672                       | 5,752,335                                               | 1,554,602                                            |
| 2002             | 3,642,409                                        | 3,495,416                          | 1,018,470                                | 282,635                                         | 1,679,659                 | 62,597                                        | 3,002,723                 | 549,856                       | 5,635,219                                               | 1,511,997                                            |
| 2003             | 4,060,267                                        | 3,386,319                          | 1,121,573                                | 298,335                                         | 1,849,687                 | 67,913                                        | 3,289,616                 | 607,514                       | 5,906,716                                               | 1,602,981                                            |
| 2004             | 4,454,661                                        | 4,040,877                          | 1,440,024                                | 320,549                                         | 1,902,951                 | 76,867                                        | 3,426,241                 | 678,148                       | 6,597,217                                               | 1,755,989                                            |
| 2005             | 4,216,104                                        | 3,658,879                          | 6,193,536                                | 303,509                                         | 2,377,681                 | 73,029                                        | 3,039,129                 | 628,576                       | 6,333,028                                               | 1,668,667                                            |
| 2006             | 4,155,326                                        | 3,540,504                          | 8,022,820                                | 335,035                                         | 2,828,454                 | 70,084                                        | 3,418,049                 | 626,718                       | 6,718,868                                               | 1,776,711                                            |
| 2007             | 4,305,820                                        | 3,871,198                          | 8,243,539                                | 352,356                                         | 2,946,130                 | 72,655                                        | 3,572,917                 | 649,392                       | 7,049,137                                               | 1,863,361                                            |
| 2008             | 4,355,289                                        | 3,961,701                          | 8,308,309                                | 347,258                                         | 2,948,669                 | 74,742                                        | 3,559,581                 | 655,662                       | 6,979,549                                               | 1,862,020                                            |
| 2009             | 3,710,389                                        | 3,427,980                          | 6,619,424                                | 272,649                                         | 2,345,267                 | 65,711                                        | 2,932,427                 | 569,675                       | 5,774,016                                               | 1,531,927                                            |
| 2010             | 3,709,181                                        | 3,423,932                          | 6,709,202                                | 267,539                                         | 2,350,345                 | 65,682                                        | 2,931,072                 | 569,465                       | 5,683,199                                               | 1,513,987                                            |
| 2011             | 3,722,280                                        | 3,441,214                          | 6,610,069                                | 274,282                                         | 2,349,817                 | 65,929                                        | 2,942,235                 | 571,520                       | 5,805,911                                               | 1,539,498                                            |
| 2012             | 3,723,342                                        | 3,436,554                          | 6,662,295                                | 270,294                                         | 2,352,362                 | 65,951                                        | 2,943,211                 | 571,692                       | 5,735,213                                               | 1,525,852                                            |
| 2013             | 3,726,921                                        | 3,452,950                          | 6,731,739                                | 259,393                                         | 2,350,036                 | 66,032                                        | 2,946,887                 | 572,293                       | 5,541,762                                               | 1,488,692                                            |
| 2014             | 3,730,088                                        | 3,445,500                          | 6,658,603                                | 280,205                                         | 2,368,037                 | 66,114                                        | 2,950,672                 | 572,857                       | 5,911,448                                               | 1,561,448                                            |
| 2015             | 3,732,755                                        | 3,443,347                          | 6,701,033                                | 259,951                                         | 2,349,437                 | 66,161                                        | 2,952,771                 | 573,265                       | 5,552,211                                               | 1,491,654                                            |
| 2016             | 3,727,717                                        | 3,456,931                          | 6,638,770                                | 282,950                                         | 2,367,753                 | 66,065                                        | 2,948,453                 | 572,473                       | 5,959,891                                               | 1,570,563                                            |
| 2017             | 3,729,888                                        | 3,453,100                          | 6,807,971                                | 268,195                                         | 2,373,152                 | 66,108                                        | 2,950,391                 | 572,819                       | 5,698,059                                               | 1,519,768                                            |
| 2018             | 3,734,063                                        | 3,453,858                          | 6,669,766                                | 272,402                                         | 2,361,809                 | 66,202                                        | 2,954,673                 | 573,519                       | 5,773,155                                               | 1,535,096                                            |
| 2019             | 3,728,398                                        | 3,466,267                          | 6,844,528                                | 282,917                                         | 2,396,235                 | 66,089                                        | 2,949,590                 | 572,614                       | 5,959,001                                               | 1,570,598                                            |
| 2020             | 3,731,220                                        | 3,462,467                          | 6,576,107                                | 269,188                                         | 2,343,605                 | 66,135                                        | 2,951,607                 | 573,033                       | 5,715,931                                               | 1,523,437                                            |
| 2021             | 3,732,283                                        | 3,437,936                          | 6,652,326                                | 257,038                                         | 2,338,788                 | 66,145                                        | 2,952,037                 | 573,171                       | 5,500,606                                               | 1,481,454                                            |
| 2022             | 3,733,151                                        | 3,439,304                          | 6,949,885                                | 270,450                                         | 2,396,880                 | 66,184                                        | 2,953,869                 | 573,375                       | 5,738,286                                               | 1,528,175                                            |
| 2023             | 3,727,892                                        | 3,446,329                          | 6,680,573                                | 282,318                                         | 2,372,614                 | 66,067                                        | 2,948,530                 | 572,496                       | 5,948,745                                               | 1,568,394                                            |
| 2024             | 3,730,185                                        | 3,473,492                          | 6,758,310                                | 268,200                                         | 2,366,805                 | 66,119                                        | 2,950,928                 | 572,883                       | 5,697,992                                               | 1,519,856                                            |
| 2025             | 3,733,679                                        | 3,419,471                          | 6,559,726                                | 270,750                                         | 2,344,067                 | 66,178                                        | 2,953,558                 | 573,410                       | 5,744,338                                               | 1,529,250                                            |
| 2026             | 3,727,361                                        | 3,471,847                          | 6,942,802                                | 283,698                                         | 2,410,165                 | 66,071                                        | 2,948,764                 | 572,455                       | 5,972,623                                               | 1,573,140                                            |
| 2027             | 3,738,417                                        | 3,356,165                          | 6,470,895                                | 266,634                                         | 2,328,310                 | 66,260                                        | 2,957,230                 | 574,131                       | 5,672,507                                               | 1,515,739                                            |
| 2028             | 3,727,360                                        | 3,574,905                          | 6,705,602                                | 257,288                                         | 2,345,568                 | 66,076                                        | 2,948,984                 | 572,469                       | 5,503,084                                               | 1,481,586                                            |
| 2029             | 3,731,150                                        | 3,406,103                          | 6,720,809                                | 281,826                                         | 2,378,642                 | 66,130                                        | 2,951,370                 | 573,011                       | 5,940,664                                               | 1,567,233                                            |
| 2030             | 3,727,210                                        | 3,446,341                          | 6,737,723                                | 282,892                                         | 2,380,786                 | 66,054                                        | 2,947,926                 | 572,388                       | 5,958,822                                               | 1,570,271                                            |
| 2031             | 3,740,713                                        | 3,360,057                          | 6,932,953                                | 250,923                                         | 2,372,599                 | 66,316                                        | 2,959,812                 | 574,531                       | 5,393,296                                               | 1,461,690                                            |
| 2032             | 3,725,426                                        | 3,572,598                          | 6,542,151                                | 281,265                                         | 2,352,690                 | 66,042                                        | 2,947,503                 | 572,175                       | 5,928,645                                               | 1,564,409                                            |
| 2033             | 3,730,925                                        | 3,415,934                          | 6,763,325                                | 265,220                                         | 2,363,347                 | 66,117                                        | 2,950,763                 | 572,950                       | 5,645,824                                               | 1,509,591                                            |
| 2034             | 3,732,695                                        | 3,448,436                          | 6,689,450                                | 262,906                                         | 2,351,661                 | 66,163                                        | 2,952,883                 | 573,266                       | 5,604,599                                               | 1,501,904                                            |
| 2035             | 3,725,905                                        | 3,472,360                          | 6,988,716                                | 299,917                                         | 2,436,266                 | 66,051                                        | 2,947,862                 | 572,248                       | 6,260,282                                               | 1,629,157                                            |
| TOTAL            | 192,162,358                                      | 154,589,415                        | 232,755,322                              | 14,291,651                                      | 108,552,394               | 3,410,999                                     | 141,662,496               | 28,377,121                    | 297,549,951                                             | 79,203,406                                           |

**TABLE B-16A. Minimum OMP&R Component of Transportation Charge for Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)   |                                                                 |                                                |               | FEATHER RIVER AREA      |                       |                            |         | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|----------------------------------------|-----------------------------------------------------------------|------------------------------------------------|---------------|-------------------------|-----------------------|----------------------------|---------|-------------------------------------------|----------------|
|                  | San Geronio<br>Pass<br>Water<br>Agency | The Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood Control<br>District | Total         | City<br>of<br>Yuba City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total   |                                           |                |
|                  | [30]                                   | [31]                                                            | [32]                                           | [33]          | [34]                    | [35]                  | [36]                       | [37]    | [38]                                      | [39]           |
| 1961             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 0                                         | 0              |
| 1962             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 3,219                                     | 42,918         |
| 1963             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 12,626                                    | 168,358        |
| 1964             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 13,938                                    | 184,729        |
| 1965             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 28,937                                    | 378,875        |
| 1966             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 31,321                                    | 408,396        |
| 1967             | 0                                      | 0                                                               | 0                                              | 0             | 0                       | 0                     | 0                          | 0       | 47,718                                    | 634,505        |
| 1968             | 8,821                                  | 972,734                                                         | 9,504                                          | 1,218,520     | 0                       | 0                     | 0                          | 0       | 46,945                                    | 2,745,159      |
| 1969             | 11,704                                 | 1,295,607                                                       | 12,610                                         | 1,654,809     | 0                       | 0                     | 0                          | 0       | 52,963                                    | 4,074,937      |
| 1970             | 14,623                                 | 1,624,569                                                       | 15,746                                         | 2,069,926     | 0                       | 0                     | 0                          | 0       | 69,744                                    | 4,676,285      |
| 1971             | 24,302                                 | 2,716,584                                                       | 26,118                                         | 3,421,554     | 0                       | 0                     | 54                         | 54      | 55,532                                    | 6,185,714      |
| 1972             | 89,131                                 | 8,038,463                                                       | 68,369                                         | 10,035,858    | 0                       | 0                     | 40                         | 40      | 80,412                                    | 12,998,870     |
| 1973             | 117,779                                | 9,890,316                                                       | 78,313                                         | 12,289,297    | 0                       | 0                     | 1                          | 1       | 54,219                                    | 15,194,233     |
| 1974             | 128,169                                | 11,581,491                                                      | 83,453                                         | 14,166,551    | 0                       | 0                     | 143                        | 143     | 76,783                                    | 17,372,560     |
| 1975             | 147,899                                | 13,584,548                                                      | 101,893                                        | 16,593,957    | 0                       | 0                     | 1,069                      | 1,069   | 84,547                                    | 20,517,423     |
| 1976             | 158,664                                | 12,862,489                                                      | 94,799                                         | 16,037,418    | 0                       | 0                     | 139                        | 139     | 106,717                                   | 20,027,212     |
| 1977             | 178,774                                | 16,203,699                                                      | 121,966                                        | 19,892,685    | 0                       | 0                     | 892                        | 892     | 98,618                                    | 24,213,491     |
| 1978             | 186,384                                | 17,811,770                                                      | 132,435                                        | 21,568,748    | 0                       | 0                     | 39                         | 39      | 100,786                                   | 26,012,788     |
| 1979             | 186,688                                | 16,414,289                                                      | 126,756                                        | 20,238,759    | 0                       | 0                     | 3,235                      | 3,235   | 119,352                                   | 24,675,595     |
| 1980             | 248,399                                | 20,926,898                                                      | 154,096                                        | 25,901,707    | 0                       | 0                     | 416                        | 416     | 178,812                                   | 32,038,398     |
| 1981             | 259,244                                | 23,731,024                                                      | 186,592                                        | 29,224,859    | 0                       | 0                     | 3,847                      | 3,847   | 185,347                                   | 35,516,365     |
| 1982             | 307,955                                | 27,994,510                                                      | 209,141                                        | 34,323,372    | 0                       | 0                     | 11,075                     | 11,075  | 173,894                                   | 41,611,654     |
| 1983             | 394,524                                | 38,953,367                                                      | 326,258                                        | 47,754,649    | 0                       | 0                     | 1,928                      | 1,928   | 220,926                                   | 56,802,779     |
| 1984             | 496,808                                | 45,597,671                                                      | 382,104                                        | 56,371,786    | 0                       | 0                     | 3,765                      | 3,765   | 225,959                                   | 67,072,552     |
| 1985             | 531,765                                | 50,064,444                                                      | 416,652                                        | 61,532,075    | 0                       | 0                     | 2,888                      | 2,888   | 340,322                                   | 73,228,724     |
| 1986             | 551,066                                | 52,858,915                                                      | 442,334                                        | 64,885,109    | 0                       | 0                     | 2,787                      | 2,787   | 279,227                                   | 76,682,112     |
| 1987             | 564,352                                | 50,737,631                                                      | 411,276                                        | 62,892,289    | 0                       | 0                     | 2,388                      | 2,388   | 345,116                                   | 75,240,983     |
| 1988             | 593,787                                | 51,262,231                                                      | 406,248                                        | 63,712,843    | 0                       | 0                     | 545                        | 545     | 365,207                                   | 76,126,694     |
| 1989             | 576,852                                | 52,638,942                                                      | 431,020                                        | 64,815,348    | 0                       | 0                     | 1,800                      | 1,800   | 422,329                                   | 78,708,338     |
| 1990             | 667,687                                | 61,053,824                                                      | 494,721                                        | 75,175,234    | 0                       | 0                     | 788                        | 788     | 474,284                                   | 91,448,066     |
| 1991             | 711,803                                | 60,874,529                                                      | 470,139                                        | 75,935,908    | 0                       | 0                     | 3,654                      | 3,654   | 214,683                                   | 91,098,893     |
| 1992             | 688,558                                | 67,460,598                                                      | 502,131                                        | 82,396,468    | 0                       | 0                     | 647                        | 647     | 443,676                                   | 100,077,318    |
| 1993             | 828,208                                | 68,749,547                                                      | 538,751                                        | 85,955,989    | 0                       | 0                     | 3,630                      | 3,630   | 599,571                                   | 107,321,034    |
| 1994             | 784,017                                | 63,928,225                                                      | 474,133                                        | 80,080,385    | 0                       | 0                     | 2,279                      | 2,279   | 609,932                                   | 101,268,236    |
| 1995             | 785,191                                | 68,079,888                                                      | 523,512                                        | 85,080,006    | 0                       | 0                     | 2,906                      | 2,906   | 534,971                                   | 107,378,967    |
| 1996             | 773,653                                | 72,757,439                                                      | 561,100                                        | 89,927,727    | 0                       | 0                     | 8,007                      | 8,007   | 571,857                                   | 113,942,346    |
| 1997             | 917,372                                | 75,655,465                                                      | 564,455                                        | 94,454,556    | 0                       | 0                     | 7,449                      | 7,449   | 428,638                                   | 115,385,082    |
| 1998             | 1,000,665                              | 80,549,464                                                      | 608,366                                        | 102,777,264   | 0                       | 0                     | 798                        | 798     | 465,140                                   | 129,501,774    |
| 1999             | 1,054,800                              | 84,857,717                                                      | 627,858                                        | 107,490,200   | 0                       | 0                     | 416                        | 416     | 559,344                                   | 134,930,505    |
| 2000             | 964,052                                | 82,467,206                                                      | 635,833                                        | 105,345,292   | 0                       | 0                     | 505                        | 505     | 0                                         | 131,938,146    |
| 2001             | 948,812                                | 92,865,248                                                      | 708,297                                        | 117,361,495   | 0                       | 0                     | 319                        | 319     | 0                                         | 144,717,003    |
| 2002             | 923,393                                | 85,334,068                                                      | 657,014                                        | 107,795,456   | 0                       | 0                     | 3,627                      | 3,627   | 0                                         | 138,336,795    |
| 2003             | 987,904                                | 82,216,721                                                      | 620,034                                        | 106,015,580   | 0                       | 0                     | 3,393                      | 3,393   | 0                                         | 135,566,443    |
| 2004             | 1,086,161                              | 99,273,497                                                      | 762,493                                        | 125,815,675   | 0                       | 0                     | 3,455                      | 3,455   | 0                                         | 155,784,314    |
| 2005             | 1,032,743                              | 77,179,085                                                      | 676,642                                        | 107,380,608   | 0                       | 0                     | 3,451                      | 3,451   | 0                                         | 134,958,194    |
| 2006             | 1,100,491                              | 80,245,197                                                      | 641,197                                        | 113,479,454   | 0                       | 0                     | 3,100                      | 3,100   | 0                                         | 143,635,010    |
| 2007             | 1,154,410                              | 89,081,067                                                      | 717,166                                        | 123,879,148   | 0                       | 0                     | 3,200                      | 3,200   | 0                                         | 155,720,912    |
| 2008             | 1,148,769                              | 90,101,936                                                      | 745,224                                        | 125,048,709   | 0                       | 0                     | 3,250                      | 3,250   | 0                                         | 158,198,614    |
| 2009             | 948,363                                | 76,162,042                                                      | 639,529                                        | 104,999,399   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,426,192    |
| 2010             | 936,639                                | 75,986,086                                                      | 638,505                                        | 104,784,834   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,207,579    |
| 2011             | 953,139                                | 76,447,358                                                      | 642,141                                        | 105,365,393   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,889,788    |
| 2012             | 944,176                                | 76,209,618                                                      | 640,852                                        | 105,081,412   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,611,690    |
| 2013             | 919,746                                | 76,273,661                                                      | 645,010                                        | 104,975,122   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,521,003    |
| 2014             | 967,331                                | 76,875,747                                                      | 642,960                                        | 106,031,010   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,584,952    |
| 2015             | 921,557                                | 75,894,449                                                      | 642,201                                        | 104,580,792   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,153,354    |
| 2016             | 973,350                                | 77,332,925                                                      | 646,104                                        | 106,543,945   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 133,085,110    |
| 2017             | 940,027                                | 76,822,158                                                      | 644,964                                        | 105,846,600   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,400,413    |
| 2018             | 949,976                                | 76,730,676                                                      | 644,973                                        | 105,720,168   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,292,305    |
| 2019             | 973,343                                | 78,009,170                                                      | 648,582                                        | 107,467,332   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 134,006,627    |
| 2020             | 942,405                                | 76,675,943                                                      | 647,355                                        | 105,478,433   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,039,716    |
| 2021             | 914,892                                | 75,502,210                                                      | 640,770                                        | 104,049,656   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 130,622,802    |
| 2022             | 945,457                                | 76,768,224                                                      | 641,195                                        | 106,004,435   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,571,060    |
| 2023             | 971,928                                | 77,068,582                                                      | 643,292                                        | 106,297,760   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,840,749    |
| 2024             | 940,069                                | 77,327,515                                                      | 650,350                                        | 106,322,704   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 132,875,214    |
| 2025             | 946,177                                | 75,415,231                                                      | 635,851                                        | 104,191,686   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 130,769,983    |
| 2026             | 975,025                                | 78,417,853                                                      | 650,126                                        | 108,011,930   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 134,544,046    |
| 2027             | 937,256                                | 73,110,322                                                      | 618,824                                        | 101,612,690   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 128,224,738    |
| 2028             | 915,025                                | 79,741,621                                                      | 677,305                                        | 108,516,873   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 135,046,593    |
| 2029             | 971,110                                | 75,895,480                                                      | 632,489                                        | 105,116,017   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,678,763    |
| 2030             | 973,170                                | 77,216,694                                                      | 643,337                                        | 106,523,614   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 133,062,547    |
| 2031             | 901,779                                | 73,361,600                                                      | 619,769                                        | 101,996,038   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 128,615,643    |
| 2032             | 969,323                                | 80,521,985                                                      | 676,840                                        | 109,721,052   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 136,236,808    |
| 2033             | 933,357                                | 75,475,512                                                      | 635,049                                        | 104,327,914   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 130,893,758    |
| 2034             | 928,269                                | 76,166,029                                                      | 643,565                                        | 104,921,826   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 131,492,129    |
| 2035             | 1,011,744                              | 79,318,620                                                      | 650,393                                        | 109,379,521   | 0                       | 0                     | 3,300                      | 3,300   | 0                                         | 135,898,754    |
| TOTAL            | 48,941,012                             | 4,081,220,224                                                   | 33,149,080                                     | 5,415,865,429 | 0                       | 0                     | 181,025                    | 181,025 | 8,723,612                                 | 6,755,340,615  |



**TABLE B-16B. Minimum OMP&R Component of Transportation Charge  
for Each Contractor for Off-Aqueduct Power Facilities**

(in dollars)

Sheet 1 of 4

| Calendar<br><br>Year | NORTH BAY AREA           |                        |           | SOUTH BAY AREA                         |                                        |                                            |            | CENTRAL COASTAL AREA                   |                                      |            |
|----------------------|--------------------------|------------------------|-----------|----------------------------------------|----------------------------------------|--------------------------------------------|------------|----------------------------------------|--------------------------------------|------------|
|                      | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total     | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total      | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total      |
|                      | [1]                      | [2]                    | [3]       | [4]                                    | [5]                                    | [6]                                        | [7]        | [8]                                    | [9]                                  | [10]       |
| 1971                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1972                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1973                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1974                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1975                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1976                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1977                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1978                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1979                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1980                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1981                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1982                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 1983                 | 10,070                   | 0                      | 10,070    | 47,473                                 | 31,446                                 | 863,937                                    | 942,856    | 0                                      | 0                                    | 0          |
| 1984                 | 29,957                   | 0                      | 29,957    | 157,280                                | 77,388                                 | 2,040,188                                  | 2,274,856  | 0                                      | 0                                    | 0          |
| 1985                 | 54,709                   | 0                      | 54,709    | 458,427                                | 582,679                                | 2,696,450                                  | 3,737,556  | 0                                      | 0                                    | 0          |
| 1986                 | 45,887                   | 0                      | 45,887    | 312,938                                | 365,147                                | 2,595,765                                  | 3,273,850  | 0                                      | 0                                    | 0          |
| 1987                 | 90,385                   | 0                      | 90,385    | 622,029                                | 674,111                                | 2,306,079                                  | 3,602,219  | 0                                      | 0                                    | 0          |
| 1988                 | 115,970                  | 114,196                | 230,166   | 616,865                                | 804,606                                | 2,116,236                                  | 3,537,707  | 0                                      | 0                                    | 0          |
| 1989                 | 64,584                   | 138,240                | 202,824   | 407,353                                | 396,069                                | 1,389,347                                  | 2,192,769  | 0                                      | 0                                    | 0          |
| 1990                 | 77,126                   | 138,805                | 215,931   | 535,269                                | 514,372                                | 1,490,250                                  | 2,539,891  | 0                                      | 0                                    | 0          |
| 1991                 | 35,178                   | 245,181                | 280,359   | 355,578                                | 477,883                                | 1,065,488                                  | 1,898,949  | 0                                      | 165,930                              | 165,930    |
| 1992                 | 74,573                   | 230,716                | 305,289   | 405,244                                | 529,119                                | 1,183,466                                  | 2,117,829  | 0                                      | 0                                    | 0          |
| 1993                 | 89,214                   | 247,977                | 337,191   | 841,383                                | 256,930                                | 1,552,562                                  | 2,650,875  | 0                                      | 0                                    | 0          |
| 1994                 | 111,942                  | 229,598                | 341,540   | 501,812                                | 559,683                                | 1,395,238                                  | 2,456,733  | 0                                      | 0                                    | 0          |
| 1995                 | 96,842                   | 235,605                | 332,447   | 833,227                                | 492,578                                | 796,524                                    | 2,122,329  | 0                                      | 0                                    | 0          |
| 1996                 | 63,698                   | 205,414                | 269,112   | 367,297                                | 304,845                                | 1,189,291                                  | 1,861,433  | 711                                    | 105                                  | 816        |
| 1997                 | 48,518                   | 193,255                | 241,773   | 455,751                                | 294,951                                | 1,220,497                                  | 1,971,199  | 44,788                                 | 298,986                              | 343,774    |
| 1998                 | 82,317                   | 251,217                | 333,534   | 380,321                                | 380,282                                | 1,103,662                                  | 1,864,265  | 198,376                                | 1,028,220                            | 1,226,596  |
| 1999                 | 58,017                   | 195,562                | 253,579   | 559,900                                | 446,655                                | 1,039,572                                  | 2,046,127  | 147,204                                | 791,946                              | 939,150    |
| 2000                 | 28,759                   | 128,393                | 157,152   | 374,808                                | 237,138                                | 748,820                                    | 1,360,766  | 82,628                                 | 474,268                              | 556,896    |
| 2001                 | 81,300                   | 156,491                | 237,791   | 394,562                                | 232,158                                | 860,678                                    | 1,487,398  | 133,971                                | 592,623                              | 726,594    |
| 2002                 | 40,384                   | 128,219                | 168,603   | 384,774                                | 230,122                                | 521,729                                    | 1,136,625  | 91,976                                 | 586,079                              | 678,055    |
| 2003                 | 38,551                   | 95,034                 | 133,585   | 309,137                                | 185,287                                | 659,690                                    | 1,154,114  | 80,724                                 | 488,877                              | 569,601    |
| 2004                 | 50,258                   | 128,102                | 178,360   | 447,529                                | 209,965                                | 546,009                                    | 1,203,503  | 92,779                                 | 661,706                              | 754,485    |
| 2005                 | 65,505                   | 165,913                | 231,418   | 501,846                                | 295,003                                | 842,594                                    | 1,639,443  | 115,120                                | 669,867                              | 784,987    |
| 2006                 | 119,936                  | 226,400                | 346,336   | 573,936                                | 384,893                                | 730,995                                    | 1,689,824  | 701,594                                | 952,682                              | 1,654,276  |
| 2007                 | 163,361                  | 222,650                | 386,011   | 825,308                                | 469,513                                | 897,792                                    | 2,192,613  | 166,669                                | 1,571,541                            | 1,738,210  |
| 2008                 | 277,105                  | 331,613                | 608,718   | 1,162,734                              | 573,067                                | 1,168,174                                  | 2,903,975  | 997,305                                | 1,814,537                            | 2,811,842  |
| 2009                 | 259,103                  | 188,581                | 447,684   | 1,154,210                              | 577,061                                | 1,159,610                                  | 2,890,881  | 989,994                                | 1,801,235                            | 2,791,229  |
| 2010                 | 264,257                  | 189,869                | 454,126   | 1,161,129                              | 580,520                                | 1,166,562                                  | 2,908,211  | 995,929                                | 1,812,033                            | 2,807,962  |
| 2011                 | 206,746                  | 201,094                | 407,840   | 969,991                                | 472,730                                | 1,267,577                                  | 2,710,298  | 768,707                                | 1,398,615                            | 2,167,322  |
| 2012                 | 209,498                  | 201,189                | 410,687   | 969,864                                | 472,668                                | 1,267,411                                  | 2,709,943  | 768,606                                | 1,398,432                            | 2,167,038  |
| 2013                 | 123,876                  | 117,714                | 241,590   | 567,115                                | 276,386                                | 741,102                                    | 1,584,603  | 449,432                                | 817,715                              | 1,267,147  |
| 2014                 | 32,296                   | 30,250                 | 62,546    | 145,651                                | 70,984                                 | 190,335                                    | 406,970    | 115,426                                | 210,011                              | 325,437    |
| 2015                 | 19,654                   | 17,938                 | 37,592    | 86,318                                 | 42,067                                 | 112,799                                    | 241,184    | 68,406                                 | 124,460                              | 192,866    |
| 2016                 | 17,244                   | 15,367                 | 32,611    | 73,945                                 | 36,038                                 | 96,631                                     | 206,614    | 58,601                                 | 106,621                              | 165,222    |
| 2017                 | 17,155                   | 14,935                 | 32,090    | 71,866                                 | 35,024                                 | 93,914                                     | 200,804    | 56,953                                 | 103,622                              | 160,575    |
| 2018                 | 7,457                    | 6,345                  | 13,802    | 30,532                                 | 14,880                                 | 39,899                                     | 85,311     | 24,196                                 | 44,024                               | 68,220     |
| 2019                 | 7,561                    | 6,292                  | 13,853    | 30,277                                 | 14,756                                 | 39,566                                     | 84,599     | 23,994                                 | 43,656                               | 67,650     |
| 2020                 | 8,319                    | 6,779                  | 15,098    | 32,619                                 | 15,897                                 | 42,626                                     | 91,142     | 25,850                                 | 47,033                               | 72,883     |
| 2021                 | 12,426                   | 10,091                 | 22,517    | 48,559                                 | 23,666                                 | 63,457                                     | 135,682    | 38,483                                 | 70,017                               | 108,500    |
| 2022                 | 11,792                   | 9,576                  | 21,368    | 46,081                                 | 22,458                                 | 60,218                                     | 128,757    | 36,518                                 | 66,443                               | 102,961    |
| 2023                 | 8,388                    | 6,812                  | 15,200    | 32,777                                 | 15,974                                 | 42,833                                     | 91,584     | 25,976                                 | 47,261                               | 73,237     |
| 2024                 | 6,111                    | 4,962                  | 11,073    | 23,879                                 | 11,638                                 | 31,205                                     | 66,722     | 18,924                                 | 34,431                               | 53,355     |
| 2025                 | 453                      | 368                    | 821       | 1,772                                  | 864                                    | 2,315                                      | 4,951      | 1,404                                  | 2,555                                | 3,959      |
| 2026                 | 724                      | 588                    | 1,312     | 2,830                                  | 1,379                                  | 3,698                                      | 7,907      | 2,243                                  | 4,081                                | 6,324      |
| 2027                 | 1,108                    | 900                    | 2,008     | 4,328                                  | 2,109                                  | 5,656                                      | 12,093     | 3,430                                  | 6,241                                | 9,671      |
| 2028                 | 936                      | 760                    | 1,696     | 3,657                                  | 1,782                                  | 4,779                                      | 10,218     | 2,898                                  | 5,273                                | 8,171      |
| 2029                 | 923                      | 750                    | 1,673     | 3,607                                  | 1,758                                  | 4,713                                      | 10,078     | 2,858                                  | 5,200                                | 8,058      |
| 2030                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 2031                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 2032                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 2033                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 2034                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| 2035                 | 0                        | 0                      | 0         | 0                                      | 0                                      | 0                                          | 0          | 0                                      | 0                                    | 0          |
| TOTAL                | 3,230,173                | 5,039,741              | 8,269,914 | 18,293,788                             | 12,696,529                             | 39,457,939                                 | 70,448,256 | 7,332,673                              | 18,246,326                           | 25,578,999 |

**TABLE B-16B. Minimum OMP&R Component of Transportation Charge  
for Each Contractor for Off-Aqueduct Power Facilities**

(in dollars)

Sheet 2 of 4

| Calendar<br><br>Year | SAN JOAQUIN VALLEY AREA           |                                               |                                |              |                       |                               |                                                   |             |
|----------------------|-----------------------------------|-----------------------------------------------|--------------------------------|--------------|-----------------------|-------------------------------|---------------------------------------------------|-------------|
|                      | Dudley Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Kern County Water Agency       |              | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total       |
|                      |                                   |                                               | Municipal<br>and<br>Industrial | Agricultural |                       |                               |                                                   |             |
|                      | [11]                              | [12]                                          | [13]                           | [14]         | [15]                  | [16]                          | [17]                                              | [18]        |
| 1971                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1972                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1973                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1974                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1975                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1976                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1977                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1978                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1979                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1980                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1981                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1982                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1983                 | 159,191                           | 0                                             | 34,366                         | 2,964,185    | 13,174                | 9,673                         | 3,733                                             | 3,184,322   |
| 1984                 | 389,518                           | 0                                             | 816,103                        | 9,095,509    | 26,774                | 33,576                        | 49,601                                            | 10,411,081  |
| 1985                 | 527,952                           | 59,322                                        | 1,053,957                      | 11,978,046   | 38,810                | 42,297                        | 1,253,257                                         | 14,953,641  |
| 1986                 | 552,172                           | 12,858                                        | 885,988                        | 11,788,714   | 40,659                | 38,275                        | 872,008                                           | 14,190,674  |
| 1987                 | 450,941                           | 24,936                                        | 1,192,388                      | 10,448,063   | 39,134                | 37,538                        | 911,938                                           | 13,104,938  |
| 1988                 | 425,261                           | 31,146                                        | 1,130,988                      | 9,910,050    | 35,851                | 26,779                        | 850,225                                           | 12,410,300  |
| 1989                 | 331,852                           | 17,226                                        | 607,908                        | 7,400,983    | 22,959                | 24,306                        | 754,007                                           | 9,159,241   |
| 1990                 | 219,381                           | 7,731                                         | 428,482                        | 5,216,562    | 12,089                | 12,046                        | 344,943                                           | 6,241,234   |
| 1991                 | 13,048                            | 3,111                                         | 570,942                        | 146,276      | 0                     | 1,354                         | 30,685                                            | 765,416     |
| 1992                 | 244,630                           | 13,395                                        | 706,155                        | 5,788,599    | 18,587                | 15,716                        | 480,903                                           | 7,267,985   |
| 1993                 | 471,706                           | 25,543                                        | 1,202,455                      | 11,405,212   | 37,276                | 36,803                        | 1,159,908                                         | 14,338,903  |
| 1994                 | 262,029                           | 15,161                                        | 901,463                        | 6,786,208    | 19,257                | 19,061                        | 567,521                                           | 8,570,700   |
| 1995                 | 626,214                           | 16,830                                        | 1,486,494                      | 12,489,555   | 41,275                | 36,377                        | 1,051,178                                         | 15,747,923  |
| 1996                 | 407,919                           | 13,446                                        | 1,226,968                      | 9,219,091    | 28,668                | 24,001                        | 1,691,135                                         | 12,611,228  |
| 1997                 | 423,144                           | (6)                                           | 794,476                        | 7,471,645    | (31)                  | 22,025                        | 137,304                                           | 8,848,557   |
| 1998                 | 471,993                           | 4,597                                         | 837,228                        | 8,366,817    | 127                   | 25,458                        | 175,371                                           | 9,881,591   |
| 1999                 | 360,554                           | 19,182                                        | 874,948                        | 7,723,883    | 24,159                | 20,065                        | 1,749,925                                         | 10,772,716  |
| 2000                 | 193,895                           | 5,762                                         | 392,659                        | 4,215,772    | 11,530                | 9,847                         | 667,127                                           | 5,496,592   |
| 2001                 | 201,286                           | 6,533                                         | 226,283                        | 2,840,015    | 7,494                 | 11,768                        | 286,120                                           | 3,579,499   |
| 2002                 | 153,869                           | 4,557                                         | 309,688                        | 2,803,477    | 9,257                 | 10,806                        | 301,042                                           | 3,592,696   |
| 2003                 | 128,292                           | 3,998                                         | 255,374                        | 2,744,723    | 10,279                | 8,100                         | 292,016                                           | 3,442,782   |
| 2004                 | 167,903                           | 12,186                                        | 431,994                        | 2,937,167    | 30,970                | 10,800                        | 278,035                                           | 3,869,055   |
| 2005                 | 333,319                           | 15,889                                        | 390,336                        | 5,934,322    | 78,555                | 11,863                        | 567,567                                           | 7,331,851   |
| 2006                 | 247,554                           | 17,879                                        | 471,737                        | 5,338,967    | 41,974                | 14,186                        | 416,884                                           | 6,549,181   |
| 2007                 | 304,261                           | 15,918                                        | 690,690                        | 5,795,693    | 50,405                | 20,627                        | 508,960                                           | 7,386,554   |
| 2008                 | 351,306                           | 18,379                                        | 797,486                        | 6,759,933    | 58,199                | 23,817                        | 587,657                                           | 8,596,777   |
| 2009                 | 348,731                           | 18,244                                        | 878,058                        | 6,623,961    | 57,772                | 23,642                        | 583,349                                           | 8,533,757   |
| 2010                 | 350,822                           | 18,354                                        | 883,321                        | 6,663,670    | 58,118                | 23,784                        | 586,846                                           | 8,584,915   |
| 2011                 | 270,781                           | 14,166                                        | 681,791                        | 5,138,080    | 44,859                | 18,358                        | 452,956                                           | 6,620,991   |
| 2012                 | 270,746                           | 14,165                                        | 681,701                        | 5,137,406    | 44,853                | 18,355                        | 452,897                                           | 6,620,123   |
| 2013                 | 158,315                           | 8,283                                         | 398,616                        | 3,004,030    | 26,227                | 10,733                        | 264,826                                           | 3,871,030   |
| 2014                 | 40,660                            | 2,127                                         | 102,375                        | 771,517      | 6,736                 | 2,757                         | 68,014                                            | 994,186     |
| 2015                 | 24,096                            | 1,261                                         | 60,671                         | 457,228      | 3,992                 | 1,634                         | 40,308                                            | 589,190     |
| 2016                 | 20,642                            | 1,080                                         | 51,975                         | 391,691      | 3,420                 | 1,399                         | 34,530                                            | 504,737     |
| 2017                 | 20,062                            | 1,050                                         | 50,513                         | 380,675      | 3,324                 | 1,360                         | 33,559                                            | 490,543     |
| 2018                 | 8,523                             | 446                                           | 21,461                         | 161,730      | 1,412                 | 578                           | 14,258                                            | 208,408     |
| 2019                 | 8,452                             | 442                                           | 21,281                         | 160,379      | 1,400                 | 573                           | 14,138                                            | 206,665     |
| 2020                 | 9,106                             | 476                                           | 22,927                         | 172,785      | 1,509                 | 617                           | 15,232                                            | 222,652     |
| 2021                 | 13,556                            | 709                                           | 34,131                         | 257,220      | 2,246                 | 919                           | 22,676                                            | 331,457     |
| 2022                 | 12,864                            | 673                                           | 32,389                         | 244,090      | 2,131                 | 872                           | 21,518                                            | 314,537     |
| 2023                 | 9,150                             | 479                                           | 23,039                         | 173,623      | 1,516                 | 620                           | 15,306                                            | 223,733     |
| 2024                 | 6,666                             | 349                                           | 16,784                         | 126,488      | 1,104                 | 452                           | 11,151                                            | 162,994     |
| 2025                 | 495                               | 26                                            | 1,245                          | 9,386        | 82                    | 34                            | 827                                               | 12,095      |
| 2026                 | 790                               | 41                                            | 1,989                          | 14,991       | 131                   | 54                            | 1,322                                             | 19,318      |
| 2027                 | 1,208                             | 63                                            | 3,042                          | 22,928       | 200                   | 82                            | 2,021                                             | 29,544      |
| 2028                 | 1,021                             | 53                                            | 2,571                          | 19,373       | 169                   | 69                            | 1,708                                             | 24,964      |
| 2029                 | 1,007                             | 53                                            | 2,535                          | 19,104       | 167                   | 68                            | 1,684                                             | 24,618      |
| 2030                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 2031                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 2032                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 2033                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 2034                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 2035                 | 0                                 | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| TOTAL                | 9,996,883                         | 448,119                                       | 22,689,971                     | 207,519,822  | 958,799               | 654,124                       | 18,628,176                                        | 260,895,894 |

**TABLE B-16B. Minimum OMP&R Component of Transportation Charge  
for Each Contractor for Off-Aqueduct Power Facilities**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                    |                                          |                                                    |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [19]                                                | [20]                               | [21]                                     | [22]                                               | [23]                      | [24]                                          | [25]                      | [26]                          | [27]                                                       | [28]                                                    |
| 1971             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1973             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1974             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1975             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1976             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1977             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1978             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1979             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1980             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1981             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1982             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1983             | 1,083,881                                           | 411,247                            | 565,798                                  | 35,432                                             | 894,572                   | 1,250                                         | 0                         | 0                             | 233,134                                                    | 28,548                                                  |
| 1984             | 2,499,848                                           | 1,122,640                          | 1,427,428                                | 102,114                                            | 2,263,172                 | 77                                            | 0                         | 0                             | 502,967                                                    | 693,074                                                 |
| 1985             | 3,749,257                                           | 1,572,025                          | 2,032,672                                | 170,137                                            | 3,230,451                 | 0                                             | 0                         | 157,601                       | 884,188                                                    | 601,583                                                 |
| 1986             | 3,159,857                                           | 1,694,487                          | 2,097,408                                | 173,460                                            | 3,340,188                 | 15,873                                        | 0                         | 301,486                       | 739,563                                                    | 1,088,901                                               |
| 1987             | 3,167,759                                           | 1,694,698                          | 1,991,841                                | 190,149                                            | 3,230,424                 | 95,994                                        | 1,786                     | 258,719                       | 1,951,799                                                  | 1,091,691                                               |
| 1988             | 2,688,113                                           | 1,776,471                          | 1,940,156                                | 187,156                                            | 3,194,137                 | 30,395                                        | 846                       | 126,639                       | 2,000,664                                                  | 839,774                                                 |
| 1989             | 2,357,669                                           | 1,348,806                          | 1,326,863                                | 132,076                                            | 2,218,516                 | 50,948                                        | 13,206                    | 493,424                       | 1,257,332                                                  | 792,087                                                 |
| 1990             | 2,528,625                                           | 1,335,341                          | 1,463,452                                | 115,746                                            | 2,413,745                 | 110,678                                       | 0                         | 545,342                       | 1,192,997                                                  | 1,054,762                                               |
| 1991             | 1,048,414                                           | 531,160                            | 1,022,405                                | 125,256                                            | 1,686,304                 | 65,111                                        | 473,291                   | 488,207                       | 540,119                                                    | 796,531                                                 |
| 1992             | 2,760,199                                           | 1,548,472                          | 1,124,775                                | 55,985                                             | 1,855,065                 | 22,891                                        | 1,130,876                 | 367,996                       | 362,232                                                    | 853,047                                                 |
| 1993             | 3,559,487                                           | 1,332,392                          | 2,256,338                                | 29,498                                             | 3,721,492                 | 60,615                                        | 1,101,799                 | 640,919                       | 425,969                                                    | 1,406,255                                               |
| 1994             | 3,963,982                                           | 1,450,328                          | 1,345,145                                | 74,879                                             | 2,218,411                 | 88,549                                        | 1,371,116                 | 678,876                       | 871,358                                                    | 1,452,741                                               |
| 1995             | 4,324,009                                           | 1,901,361                          | 2,498,462                                | 44,237                                             | 4,120,837                 | 43,892                                        | 881,146                   | 636,541                       | 75,278                                                     | 1,397,623                                               |
| 1996             | 3,572,856                                           | 1,507,542                          | 4,652,945                                | 77,384                                             | 7,674,388                 | 31,691                                        | 760,763                   | 723,670                       | 458,246                                                    | 1,201,941                                               |
| 1997             | 3,411,379                                           | 1,468,949                          | 4,294,703                                | 42,135                                             | 4,319,206                 | 24,319                                        | 891,191                   | 648,652                       | 625,340                                                    | 1,175,556                                               |
| 1998             | 3,977,988                                           | 1,599,394                          | 7,554,910                                | 16,624                                             | 6,174,031                 | 30,365                                        | 508,248                   | 657,806                       | 166,952                                                    | 827,650                                                 |
| 1999             | 3,696,973                                           | 1,694,851                          | 3,195,685                                | 71,662                                             | 3,678,076                 | 18,305                                        | 501,486                   | 710,674                       | 815,001                                                    | 1,375,575                                               |
| 2000             | 2,372,130                                           | 994,396                            | 1,420,806                                | 40,083                                             | 1,954,947                 | 0                                             | 374,972                   | 257,146                       | 617,664                                                    | 508,258                                                 |
| 2001             | 2,668,867                                           | 1,411,816                          | 458,191                                  | 53,221                                             | 755,763                   | 0                                             | 212,427                   | 443,872                       | 1,333,688                                                  | 118,828                                                 |
| 2002             | 1,674,587                                           | 1,389,921                          | 569,606                                  | 74,418                                             | 939,655                   | 0                                             | 140,550                   | 531,620                       | 2,422,881                                                  | 844,839                                                 |
| 2003             | 1,480,979                                           | 1,405,892                          | 488,863                                  | 47,681                                             | 806,231                   | 0                                             | 637,929                   | 284,877                       | 807,486                                                    | 640,047                                                 |
| 2004             | 1,812,210                                           | 1,676,067                          | 554,535                                  | 71,930                                             | 759,819                   | 0                                             | 465,681                   | 368,704                       | 2,071,504                                                  | 449,688                                                 |
| 2005             | 2,242,606                                           | 1,592,527                          | 2,076,562                                | 21,114                                             | 2,095,696                 | 2,433                                         | 587,884                   | 433,365                       | 1,931,459                                                  | 599,331                                                 |
| 2006             | 2,785,063                                           | 1,800,201                          | 2,678,718                                | 120,396                                            | 1,105,994                 | 29,922                                        | 1,734,640                 | 683,876                       | 3,324,970                                                  | 670,675                                                 |
| 2007             | 2,516,000                                           | 2,574,329                          | 5,817,326                                | 185,754                                            | 1,721,283                 | 108,147                                       | 1,015,760                 | 1,001,532                     | 4,424,193                                                  | 667,380                                                 |
| 2008             | 6,830,190                                           | 4,213,175                          | 7,776,352                                | 380,149                                            | 3,210,715                 | 124,869                                       | 4,254,402                 | 1,156,391                     | 6,588,387                                                  | 1,849,372                                               |
| 2009             | 7,572,613                                           | 4,182,290                          | 7,719,347                                | 369,713                                            | 3,187,179                 | 123,953                                       | 4,815,440                 | 1,147,914                     | 6,540,091                                                  | 1,835,815                                               |
| 2010             | 7,618,008                                           | 4,207,362                          | 7,765,621                                | 371,929                                            | 3,206,285                 | 124,696                                       | 4,848,489                 | 1,154,795                     | 6,579,296                                                  | 1,846,820                                               |
| 2011             | 5,917,075                                           | 4,050,008                          | 5,993,886                                | 287,073                                            | 2,474,767                 | 96,247                                        | 3,740,273                 | 891,327                       | 5,078,222                                                  | 1,425,466                                               |
| 2012             | 5,916,300                                           | 4,273,244                          | 5,993,100                                | 287,035                                            | 2,474,443                 | 96,234                                        | 3,739,783                 | 891,211                       | 5,077,557                                                  | 1,425,279                                               |
| 2013             | 3,459,478                                           | 2,498,722                          | 3,504,386                                | 167,840                                            | 1,446,898                 | 56,272                                        | 2,186,789                 | 521,124                       | 2,969,034                                                  | 833,413                                                 |
| 2014             | 888,488                                             | 641,740                            | 900,022                                  | 43,106                                             | 371,603                   | 14,452                                        | 561,627                   | 133,839                       | 762,529                                                    | 214,043                                                 |
| 2015             | 526,549                                             | 380,317                            | 533,384                                  | 25,546                                             | 220,225                   | 8,565                                         | 332,840                   | 79,317                        | 451,901                                                    | 126,849                                                 |
| 2016             | 451,077                                             | 325,805                            | 456,932                                  | 21,884                                             | 188,659                   | 7,337                                         | 285,132                   | 67,949                        | 387,128                                                    | 108,668                                                 |
| 2017             | 438,391                                             | 316,642                            | 444,081                                  | 21,269                                             | 183,353                   | 7,131                                         | 277,113                   | 66,038                        | 376,241                                                    | 105,611                                                 |
| 2018             | 186,250                                             | 134,525                            | 188,668                                  | 9,036                                              | 77,897                    | 3,030                                         | 117,731                   | 28,056                        | 159,846                                                    | 44,869                                                  |
| 2019             | 184,694                                             | 133,402                            | 187,092                                  | 8,961                                              | 77,247                    | 3,004                                         | 116,748                   | 27,822                        | 158,511                                                    | 44,494                                                  |
| 2020             | 198,981                                             | 143,721                            | 201,564                                  | 9,654                                              | 83,222                    | 3,237                                         | 125,779                   | 29,974                        | 170,772                                                    | 47,936                                                  |
| 2021             | 296,218                                             | 213,953                            | 300,063                                  | 14,371                                             | 123,891                   | 4,818                                         | 187,244                   | 44,621                        | 254,224                                                    | 71,361                                                  |
| 2022             | 281,097                                             | 203,032                            | 284,746                                  | 13,638                                             | 117,567                   | 4,572                                         | 177,686                   | 42,344                        | 241,247                                                    | 67,718                                                  |
| 2023             | 199,947                                             | 144,418                            | 202,542                                  | 9,701                                              | 83,626                    | 3,252                                         | 126,389                   | 30,119                        | 171,600                                                    | 48,169                                                  |
| 2024             | 145,665                                             | 105,211                            | 147,556                                  | 7,067                                              | 60,923                    | 2,369                                         | 92,077                    | 21,942                        | 125,014                                                    | 35,092                                                  |
| 2025             | 10,809                                              | 7,807                              | 10,949                                   | 524                                                | 4,521                     | 176                                           | 6,832                     | 1,628                         | 9,276                                                      | 2,604                                                   |
| 2026             | 17,264                                              | 12,469                             | 17,488                                   | 838                                                | 7,220                     | 281                                           | 10,913                    | 2,601                         | 14,816                                                     | 4,159                                                   |
| 2027             | 26,404                                              | 19,071                             | 26,747                                   | 1,281                                              | 11,043                    | 429                                           | 16,690                    | 3,977                         | 22,661                                                     | 6,361                                                   |
| 2028             | 22,310                                              | 16,114                             | 22,600                                   | 1,082                                              | 9,331                     | 363                                           | 14,103                    | 3,361                         | 19,147                                                     | 5,375                                                   |
| 2029             | 22,001                                              | 15,891                             | 22,286                                   | 1,067                                              | 9,202                     | 358                                           | 13,907                    | 3,314                         | 18,882                                                     | 5,300                                                   |
| 2030             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2031             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2032             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2033             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2034             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2035             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| TOTAL            | 110,312,547                                         | 63,074,232                         | 97,555,005                               | 4,311,291                                          | 84,002,220                | 1,517,100                                     | 38,853,584                | 17,791,208                    | 66,213,366                                                 | 31,331,159                                              |

**TABLE B-16B. Minimum OMP&R Component of Transportation Charge  
for Each Contractor for Off-Aqueduct Power Facilities**

(in dollars)

Sheet 4 of 4

| Calendar<br><br>Year | SOUTHERN CALIFORNIA AREA (continued)   |                                                                    |                                                   |               | FEATHER RIVER AREA   |                    |                            |       | TOTAL<br>STATE WATER<br>PROJECT <sup>a</sup> |
|----------------------|----------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|---------------|----------------------|--------------------|----------------------------|-------|----------------------------------------------|
|                      | San Geronio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total         | City of<br>Yuba City | County of<br>Butte | Plumas<br>County<br>FC&WCD | Total |                                              |
|                      | [29]                                   | [30]                                                               | [31]                                              | [32]          | [33]                 | [34]               | [35]                       | [36]  | [37]                                         |
| 1971                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1972                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1973                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1974                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1975                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1976                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1977                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1978                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1979                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1980                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1981                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1982                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 1983                 | 0                                      | 12,791,358                                                         | 0                                                 | 16,045,220    | 0                    | 0                  | 0                          | 0     | 20,182,468                                   |
| 1984                 | 0                                      | 39,229,567                                                         | 0                                                 | 47,840,887    | 0                    | 0                  | 0                          | 0     | 60,556,781                                   |
| 1985                 | 0                                      | 77,446,523                                                         | 0                                                 | 89,844,437    | 0                    | 0                  | 0                          | 0     | 108,590,343                                  |
| 1986                 | 0                                      | 77,581,287                                                         | 0                                                 | 90,192,510    | 0                    | 0                  | 0                          | 0     | 107,702,921                                  |
| 1987                 | 0                                      | 68,939,195                                                         | 0                                                 | 82,614,055    | 0                    | 0                  | 0                          | 0     | 99,411,597                                   |
| 1988                 | 0                                      | 79,936,309                                                         | 0                                                 | 92,720,660    | 0                    | 0                  | 0                          | 0     | 108,898,833                                  |
| 1989                 | 0                                      | 68,311,546                                                         | 0                                                 | 78,302,473    | 0                    | 0                  | 0                          | 0     | 89,857,307                                   |
| 1990                 | 0                                      | 83,964,409                                                         | 277,885                                           | 95,002,982    | 0                    | 0                  | 0                          | 0     | 104,000,038                                  |
| 1991                 | 0                                      | 54,214,229                                                         | 132,209                                           | 61,123,236    | 0                    | 0                  | 0                          | 0     | 64,233,890                                   |
| 1992                 | 0                                      | 72,401,054                                                         | 0                                                 | 82,482,592    | 0                    | 0                  | 0                          | 0     | 92,173,695                                   |
| 1993                 | 0                                      | 55,312,615                                                         | 0                                                 | 69,847,379    | 0                    | 0                  | 0                          | 0     | 87,174,348                                   |
| 1994                 | 0                                      | 72,838,621                                                         | 0                                                 | 86,354,006    | 0                    | 0                  | 0                          | 0     | 97,722,979                                   |
| 1995                 | 0                                      | 40,862,813                                                         | 0                                                 | 56,786,199    | 0                    | 0                  | 0                          | 0     | 74,988,898                                   |
| 1996                 | 0                                      | 36,536,259                                                         | 401                                               | 57,198,086    | 0                    | 0                  | 0                          | 0     | 71,940,675                                   |
| 1997                 | 0                                      | 37,121,379                                                         | 108,559                                           | 54,131,368    | 0                    | 0                  | 0                          | 0     | 65,536,671                                   |
| 1998                 | 0                                      | 30,341,609                                                         | 149,170                                           | 52,004,747    | 0                    | 0                  | 0                          | 0     | 65,310,733                                   |
| 1999                 | 0                                      | 42,257,580                                                         | 106,226                                           | 58,122,094    | 0                    | 0                  | 0                          | 0     | 72,133,666                                   |
| 2000                 | 0                                      | 43,977,877                                                         | 123,318                                           | 52,641,597    | 0                    | 0                  | 0                          | 0     | 60,213,003                                   |
| 2001                 | 0                                      | 49,183,605                                                         | 84,487                                            | 56,724,765    | 0                    | 0                  | 0                          | 0     | 62,756,047                                   |
| 2002                 | 0                                      | 45,579,833                                                         | 154,113                                           | 54,322,023    | 0                    | 0                  | 0                          | 0     | 59,898,002                                   |
| 2003                 | 3,385                                  | 42,982,970                                                         | 132,336                                           | 49,718,676    | 0                    | 0                  | 0                          | 0     | 55,018,758                                   |
| 2004                 | 44,621                                 | 58,640,223                                                         | 170,747                                           | 67,085,729    | 0                    | 0                  | 0                          | 0     | 73,091,132                                   |
| 2005                 | 62,042                                 | 61,362,119                                                         | 65,360                                            | 73,072,498    | 0                    | 0                  | 0                          | 0     | 83,060,197                                   |
| 2006                 | 458,220                                | 81,025,875                                                         | 200,630                                           | 96,619,180    | 0                    | 0                  | 0                          | 0     | 106,858,797                                  |
| 2007                 | 617,187                                | 90,906,983                                                         | 1,008,870                                         | 112,564,744   | 0                    | 0                  | 0                          | 0     | 124,268,132                                  |
| 2008                 | 1,110,907                              | 82,019,400                                                         | 1,164,863                                         | 120,679,172   | 0                    | 0                  | 0                          | 0     | 135,600,484                                  |
| 2009                 | 1,102,764                              | 81,418,153                                                         | 1,156,324                                         | 121,171,596   | 0                    | 0                  | 0                          | 0     | 135,835,147                                  |
| 2010                 | 1,109,374                              | 81,906,226                                                         | 1,163,256                                         | 121,902,157   | 0                    | 0                  | 0                          | 0     | 136,657,371                                  |
| 2011                 | 856,269                                | 89,882,553                                                         | 897,858                                           | 121,591,024   | 0                    | 0                  | 0                          | 0     | 133,497,475                                  |
| 2012                 | 856,157                                | 89,870,772                                                         | 897,740                                           | 121,798,855   | 0                    | 0                  | 0                          | 0     | 133,706,646                                  |
| 2013                 | 500,627                                | 52,550,742                                                         | 524,942                                           | 71,220,267    | 0                    | 0                  | 0                          | 0     | 78,184,637                                   |
| 2014                 | 128,575                                | 13,496,461                                                         | 134,819                                           | 18,291,304    | 0                    | 0                  | 0                          | 0     | 20,080,443                                   |
| 2015                 | 76,198                                 | 7,998,472                                                          | 79,899                                            | 10,840,062    | 0                    | 0                  | 0                          | 0     | 11,900,894                                   |
| 2016                 | 65,276                                 | 6,852,021                                                          | 68,446                                            | 9,286,314     | 0                    | 0                  | 0                          | 0     | 10,195,498                                   |
| 2017                 | 63,440                                 | 6,659,314                                                          | 66,521                                            | 9,025,145     | 0                    | 0                  | 0                          | 0     | 9,909,157                                    |
| 2018                 | 26,953                                 | 2,829,206                                                          | 28,262                                            | 3,834,329     | 0                    | 0                  | 0                          | 0     | 4,210,070                                    |
| 2019                 | 26,727                                 | 2,805,575                                                          | 28,026                                            | 3,802,303     | 0                    | 0                  | 0                          | 0     | 4,175,070                                    |
| 2020                 | 28,795                                 | 3,022,597                                                          | 30,193                                            | 4,096,425     | 0                    | 0                  | 0                          | 0     | 4,498,200                                    |
| 2021                 | 42,866                                 | 4,499,658                                                          | 44,948                                            | 6,098,236     | 0                    | 0                  | 0                          | 0     | 6,696,392                                    |
| 2022                 | 40,678                                 | 4,269,972                                                          | 42,654                                            | 5,786,951     | 0                    | 0                  | 0                          | 0     | 6,354,574                                    |
| 2023                 | 28,935                                 | 3,037,261                                                          | 30,340                                            | 4,116,299     | 0                    | 0                  | 0                          | 0     | 4,520,053                                    |
| 2024                 | 21,079                                 | 2,212,702                                                          | 22,103                                            | 2,998,800     | 0                    | 0                  | 0                          | 0     | 3,292,944                                    |
| 2025                 | 1,564                                  | 164,187                                                            | 1,640                                             | 222,517       | 0                    | 0                  | 0                          | 0     | 244,343                                      |
| 2026                 | 2,498                                  | 262,245                                                            | 2,620                                             | 355,412       | 0                    | 0                  | 0                          | 0     | 390,273                                      |
| 2027                 | 3,821                                  | 401,084                                                            | 4,007                                             | 543,576       | 0                    | 0                  | 0                          | 0     | 596,892                                      |
| 2028                 | 3,229                                  | 338,899                                                            | 3,385                                             | 459,299       | 0                    | 0                  | 0                          | 0     | 504,348                                      |
| 2029                 | 3,184                                  | 334,196                                                            | 3,338                                             | 452,926       | 0                    | 0                  | 0                          | 0     | 497,353                                      |
| 2030                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 2031                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 2032                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 2033                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 2034                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| 2035                 | 0                                      | 0                                                                  | 0                                                 | 0             | 0                    | 0                  | 0                          | 0     | 0                                            |
| TOTAL                | 7,285,371                              | 1,960,577,534                                                      | 9,110,495                                         | 2,491,935,112 | 0                    | 0                  | 0                          | 0     | 2,857,128,175                                |

a) Costs allocated to contractors in 1989 through 2002 are reduced by credits for Off-Aqueduct Power Facility costs allocated to the pumping of non-Project water.

# TABLE B-17. Unit Variable OMP&R Component of Transportation Charge

(in dollars per acre-foot)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AQUEDUCT                        |                         |                                                        |                         |                                                                       |                         | SOUTH BAY AQUEDUCT                                                |                         | CALIFORNIA AQUEDUCT               |                         |
|------------------|-------------------------------------------|-------------------------|--------------------------------------------------------|-------------------------|-----------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------|-------------------------|-----------------------------------|-------------------------|
|                  | Reach 1<br>Barker Slough<br>Pumping Plant |                         | Reach 3A<br>Cordelia Pumping Plant<br>Solano County WA |                         | Reach 3B<br>Cordelia Pumping Plant<br>Napa County FC&WCD <sup>a</sup> |                         | Reach 1<br>South Bay and Del Valle<br>Pumping Plants <sup>b</sup> |                         | Reach 1<br>Banks<br>Pumping Plant |                         |
|                  | Unit Rate                                 | Cumulative<br>Unit Rate | Unit Rate                                              | Cumulative<br>Unit Rate | Unit Rate                                                             | Cumulative<br>Unit Rate | Unit Rate                                                         | Cumulative<br>Unit Rate | Unit Rate                         | Cumulative<br>Unit Rate |
|                  | [1]                                       | [2]                     | [3]                                                    | [4]                     | [5]                                                                   | [6]                     | [7]                                                               | [8]                     | [9]                               | [10]                    |
| 1961             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 0                                                                 | 0                       | 0                                 | 0                       |
| 1962             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 4.1511341                                                         | 4.1511341               | 0                                 | 0                       |
| 1963             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 4.5639383                                                         | 4.5639383               | 0                                 | 0                       |
| 1964             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 3.5452154                                                         | 3.5452154               | 0                                 | 0                       |
| 1965             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 4.1911773                                                         | 4.1911773               | 0                                 | 0                       |
| 1966             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 3.5074573                                                         | 3.5074573               | 0                                 | 0                       |
| 1967             | 0                                         | 0                       | 0                                                      | 0                       | 0                                                                     | 0                       | 3.9306767                                                         | 4.1752198               | 0.2445431                         | 0.2445431               |
| 1968             | 0                                         | 0                       | 0                                                      | 0                       | 5.7570016                                                             | 5.7570016               | 3.3315620                                                         | 4.8750942               | 1.5435322                         | 1.5435322               |
| 1969             | 0                                         | 0                       | 0                                                      | 0                       | 3.1823595                                                             | 3.1823595               | 3.6949019                                                         | 4.8016170               | 1.1067151                         | 1.1067151               |
| 1970             | 0                                         | 0                       | 0                                                      | 0                       | 3.7584301                                                             | 3.7584301               | 4.4256141                                                         | 5.3721490               | 0.9465349                         | 0.9465349               |
| 1971             | 0                                         | 0                       | 0                                                      | 0                       | 4.2082507                                                             | 4.2082507               | 3.8714396                                                         | 4.7522833               | 0.8808437                         | 0.8808437               |
| 1972             | 0                                         | 0                       | 0                                                      | 0                       | 3.9577735                                                             | 3.9577735               | 4.3250690                                                         | 5.2281686               | 0.9030996                         | 0.9030996               |
| 1973             | 0                                         | 0                       | 0                                                      | 0                       | 3.8103903                                                             | 3.8103903               | 5.2455409                                                         | 6.1841800               | 0.9386391                         | 0.9386391               |
| 1974             | 0                                         | 0                       | 0                                                      | 0                       | 3.5878850                                                             | 3.5878850               | 6.3321503                                                         | 7.2293909               | 0.8972406                         | 0.8972406               |
| 1975             | 0                                         | 0                       | 0                                                      | 0                       | 2.1606725                                                             | 2.1606725               | 3.7365711                                                         | 4.8327731               | 1.0962020                         | 1.0962020               |
| 1976             | 0                                         | 0                       | 0                                                      | 0                       | 2.9283909                                                             | 2.9283909               | 4.5191527                                                         | 5.7132795               | 1.1941268                         | 1.1941268               |
| 1977             | 0                                         | 0                       | 0                                                      | 0                       | 2.7516411                                                             | 2.7516411               | 4.7630172                                                         | 6.5309098               | 1.7679736                         | 1.7679736               |
| 1978             | 0                                         | 0                       | 0                                                      | 0                       | 3.5949619                                                             | 3.5949619               | 5.2086183                                                         | 6.8245097               | 1.6158914                         | 1.6158914               |
| 1979             | 0                                         | 0                       | 0                                                      | 0                       | 2.4747752                                                             | 2.4747752               | 4.9524184                                                         | 7.1045026               | 2.1520842                         | 2.1520842               |
| 1980             | 0                                         | 0                       | 0                                                      | 0                       | 2.9737588                                                             | 2.9737588               | 4.5186576                                                         | 5.8960239               | 1.3773663                         | 1.3773663               |
| 1981             | 0                                         | 0                       | 0                                                      | 0                       | 2.6488168                                                             | 2.6488168               | 4.3834851                                                         | 6.4662961               | 2.0828110                         | 2.0828110               |
| 1982             | 0                                         | 0                       | 0                                                      | 0                       | 10.0222589                                                            | 10.0222589              | 5.6383622                                                         | 7.4121096               | 1.7737474                         | 1.7737474               |
| 1983             | 0                                         | 0                       | 0                                                      | 0                       | 1.0240490                                                             | 1.0240490               | 0.8686507                                                         | 1.7250802               | 0.8564295                         | 0.8564295               |
| 1984             | 0                                         | 0                       | 0                                                      | 0                       | 1.6524119                                                             | 1.6524119               | 2.7719370                                                         | 3.9566693               | 1.1847323                         | 1.1847323               |
| 1985             | 0                                         | 0                       | 0                                                      | 0                       | 2.5219114                                                             | 2.5219114               | 3.6942124                                                         | 5.3128683               | 1.6186559                         | 1.6186559               |
| 1986             | 0                                         | 0                       | 0                                                      | 0                       | 4.4046604                                                             | 4.4046604               | 7.2799131                                                         | 10.6056639              | 3.3257508                         | 3.3257508               |
| 1987             | 0                                         | 0                       | 0                                                      | 0                       | 3.5386715                                                             | 3.5386715               | 6.4837861                                                         | 9.2421280               | 2.7583419                         | 2.7583419               |
| 1988             | 1.1792022                                 | 1.1792022               | 0                                                      | 1.1792022               | 4.4545623                                                             | 5.6337645               | 6.1749958                                                         | 8.7900561               | 2.6150603                         | 2.6150603               |
| 1989             | 1.2712038                                 | 1.2712038               | 2.5418648                                              | 3.8130686               | 4.2795803                                                             | 5.5507841               | 6.1600349                                                         | 11.6976286              | 3.5375937                         | 3.5375937               |
| 1990             | 2.0024548                                 | 2.0024548               | 4.2324041                                              | 6.2348589               | 5.8752161                                                             | 7.8776709               | 11.7200790                                                        | 15.8670513              | 4.1469723                         | 4.1469723               |
| 1991             | 1.2488027                                 | 1.2488027               | 2.6241245                                              | 3.8729272               | 3.8050725                                                             | 5.0538752               | 7.5402614                                                         | 11.2642636              | 3.7240022                         | 3.7240022               |
| 1992             | 0.7095451                                 | 0.7095451               | 1.4174620                                              | 2.1270071               | 2.3506623                                                             | 3.0602074               | 4.0600957                                                         | 6.4118184               | 2.3517227                         | 2.3517227               |
| 1993             | -0.3463994                                | -0.3463994              | -0.6048649                                             | -0.9512643              | -1.0204313                                                            | -1.3668307              | -1.4929839                                                        | -1.2402745              | 0.2527094                         | 0.2527094               |
| 1994             | 1.4607776                                 | 1.4607776               | 2.6575471                                              | 4.1183247               | 4.2850412                                                             | 5.7458122               | 7.9485622                                                         | 11.2592004              | 3.3106382                         | 3.3106382               |
| 1995             | 0.7544766                                 | 0.7544766               | 1.2974895                                              | 2.0519661               | 2.2753763                                                             | 3.0298529               | 3.2312761                                                         | 5.2800374               | 2.0487613                         | 2.0487613               |
| 1996             | 1.6427835                                 | 1.6427835               | 2.7704025                                              | 4.4131860               | 4.7993051                                                             | 6.4420886               | 8.0186492                                                         | 11.3633990              | 3.3447498                         | 3.3447498               |
| 1997             | 1.7801484                                 | 1.7801484               | 3.0246843                                              | 4.8048327               | 5.0575904                                                             | 6.8377388               | 9.6521246                                                         | 12.6148371              | 2.9627125                         | 2.9627125               |
| 1998             | -0.3031174                                | -0.3031174              | -0.5212041                                             | -0.8243215              | -0.8497854                                                            | -1.1529028              | -1.7656471                                                        | -1.6140875              | 0.1515596                         | 0.1515596               |
| 1999             | 0.7893362                                 | 0.7893362               | 1.2927037                                              | 2.0820399               | 1.9928526                                                             | 2.7821888               | 5.1162295                                                         | 6.9791811               | 1.8629516                         | 1.8629516               |
| 2000             | 1.3959233                                 | 1.3959233               | 1.9764390                                              | 3.3723623               | 3.0411557                                                             | 4.4370790               | 6.3511103                                                         | 8.6610803               | 2.3099700                         | 2.3099700               |
| 2001             | 8.1656675                                 | 8.1656675               | 12.6117906                                             | 20.7774581              | 22.7930551                                                            | 30.9587226              | 42.4371629                                                        | 55.0733192              | 12.6361563                        | 12.6361563              |
| 2002             | 4.0978448                                 | 4.0978448               | 5.1839120                                              | 9.2817568               | 8.7407898                                                             | 12.8386346              | 17.7297693                                                        | 23.7157370              | 5.9859677                         | 5.9859677               |
| 2003             | 4.2299106                                 | 4.2299106               | 6.8941022                                              | 11.1240128              | 12.4277426                                                            | 16.6576532              | 18.7448272                                                        | 25.2861174              | 6.5412902                         | 6.5412902               |
| 2004             | 4.7386444                                 | 4.7386444               | 6.0853109                                              | 10.8239553              | 12.7072043                                                            | 17.4458487              | 19.1567803                                                        | 26.2235278              | 7.0667475                         | 7.0667475               |
| 2005             | 6.1143976                                 | 6.1143976               | 7.3530754                                              | 13.4674730              | 19.0132129                                                            | 25.1276105              | 25.2864316                                                        | 33.5767244              | 8.2902928                         | 8.2902928               |
| 2006             | 6.8000000                                 | 6.8000000               | 18.5713748                                             | 25.3713748              | 32.1780691                                                            | 38.9780691              | 31.4073332                                                        | 39.7548735              | 8.3475403                         | 8.3475403               |
| 2007             | 10.2076137                                | 10.2076137              | 35.1913707                                             | 45.3989844              | 40.4552779                                                            | 50.6628916              | 36.6421205                                                        | 47.0209087              | 10.3787882                        | 10.3787882              |
| 2008             | 7.7081039                                 | 7.7081039               | 41.1028367                                             | 48.8109406              | 32.1658527                                                            | 39.8739566              | 36.8213919                                                        | 49.5322432              | 12.7108513                        | 12.7108513              |
| 2009             | 6.6436958                                 | 6.6436958               | 56.4851321                                             | 63.1288279              | 16.5280068                                                            | 23.1717026              | 39.9594174                                                        | 50.1984861              | 10.2390687                        | 10.2390687              |
| 2010             | 6.9099808                                 | 6.9099808               | 59.0825660                                             | 65.9925468              | 17.4640537                                                            | 24.3740345              | 41.7017564                                                        | 54.5433778              | 12.8436214                        | 12.8436214              |
| 2011             | 6.9166504                                 | 6.9166504               | 21.5739394                                             | 28.4905898              | 17.5488834                                                            | 24.4655338              | 31.3292222                                                        | 41.4956505              | 10.1664283                        | 10.1664283              |
| 2012             | 7.1260585                                 | 7.1260585               | 22.3111846                                             | 29.4372431              | 18.3043461                                                            | 25.4304046              | 32.3488265                                                        | 42.2577259              | 9.9088994                         | 9.9088994               |
| 2013             | 7.7316713                                 | 7.7316713               | 24.4749862                                             | 32.2066575              | 20.3562550                                                            | 28.0879263              | 35.3415508                                                        | 48.0199628              | 12.6784120                        | 12.6784120              |
| 2014             | 8.2417738                                 | 8.2417738               | 26.2741047                                             | 34.5158785              | 22.1214868                                                            | 30.3632606              | 37.8300275                                                        | 49.2282114              | 11.3981839                        | 11.3981839              |
| 2015             | 8.3662810                                 | 8.3662810               | 26.6688705                                             | 35.0351515              | 22.6905149                                                            | 31.0567959              | 38.3759371                                                        | 51.1097075              | 12.7337704                        | 12.7337704              |
| 2016             | 8.4576404                                 | 8.4576404               | 26.9412121                                             | 35.3988525              | 23.1303345                                                            | 31.5879749              | 38.7526748                                                        | 53.4063997              | 14.6537249                        | 14.6537249              |
| 2017             | 8.3623301                                 | 8.3623301               | 26.5523967                                             | 34.9147268              | 22.9413589                                                            | 31.3036890              | 38.2148037                                                        | 51.1443424              | 12.9295387                        | 12.9295387              |
| 2018             | 8.5930973                                 | 8.5930973               | 27.3198347                                             | 35.9129320              | 23.8931962                                                            | 32.4862935              | 39.2762960                                                        | 52.2276789              | 12.9513829                        | 12.9513829              |
| 2019             | 8.7987837                                 | 8.7987837               | 27.9945455                                             | 36.7933292              | 24.7720791                                                            | 33.5708628              | 40.2094918                                                        | 55.1061602              | 14.8966684                        | 14.8966684              |
| 2020             | 8.3758667                                 | 8.3758667               | 26.4614876                                             | 34.8373543              | 23.4975804                                                            | 31.8734471              | 38.0890126                                                        | 51.3371638              | 13.2481512                        | 13.2481512              |
| 2021             | 8.3683752                                 | 8.3683752               | 26.4180165                                             | 34.7863917              | 23.4880469                                                            | 31.8564221              | 38.0289708                                                        | 51.0182748              | 12.9893040                        | 12.9893040              |
| 2022             | 8.1234121                                 | 8.1234121               | 25.5623141                                             | 33.6857262              | 22.6518429                                                            | 30.7752550              | 36.8454736                                                        | 48.8869305              | 12.0414569                        | 12.0414569              |
| 2023             | 8.1669617                                 | 8.1669617               | 25.7143802                                             | 33.8813419              | 22.8004134                                                            | 30.9673751              | 37.0557706                                                        | 50.0536890              | 12.9979184                        | 12.9979184              |
| 2024             | 8.4509319                                 | 8.4509319               | 26.7063361                                             | 35.1572680              | 23.7697554                                                            | 32.2206873              | 38.4277520                                                        | 52.6751253              | 14.2473733                        | 14.2473733              |
| 2025             | 8.4148272                                 | 8.4148272               | 26.5801102                                             | 34.9949374              | 23.6464692                                                            | 32.0612964              | 38.2532870                                                        | 50.2133810              | 11.9600940                        | 11.9600940              |
| 2026             | 8.4695960                                 | 8.4695960               | 26.7715152                                             | 35.2411112              | 23.8351511                                                            | 32.3031131              | 38.5179325                                                        | 53.3569400              | 14.8390075                        | 14.8390075              |
| 2027             | 8.3482794                                 | 8.3482794               | 26.3477686                                             | 34.6960480              | 23.4193937                                                            | 31.7676731              | 37.9317972                                                        | 51.2476096              | 13.3158124                        | 13.3158124              |
| 2028             | 8.4032695                                 | 8.4032695               | 26.5397796                                             | 34.9430491              | 23.6070617                                                            | 32.0103312              | 38.1975023                                                        | 51.2935465              | 13.0960442                        | 13.0960442              |
| 2029             | 8.3016972                                 | 8.3016972               | 26.1850689                                             | 34.4867661              | 23.2604203                                                            | 31.5621175              | 37.7068452                                                        | 50.6537083              | 12.9468631                        | 12.9468631              |
| 2030             | 8.3652124                                 | 8.3652124               | 26.4069422                                             | 34.7721546              | 23.4771960                                                            | 31.8424084              | 38.0135859                                                        | 51.4992296              | 13.4856437                        | 13.4856437              |
| 2031             | 8.2566118                                 | 8.2566118               | 26.0276033                                             | 34.2842151              | 23.1064761                                                            | 31.3630879              | 37.4889523                                                        | 49.7153397              | 12.2263874                        | 12.2263874              |
| 2032             | 8.4126406                                 | 8.4126406               | 26.5725620                                             | 34.9850206              | 23.6391319                                                            | 32.0517725              | 38.2428091                                                        | 51.5402532              | 13.2974441                        | 13.2974441              |
| 2033             | 8.8144003                                 | 8.8144003               | 27.9758678                                             | 36.7902681              | 25.0103686                                                            | 33.8247689              | 40.1836620                                                        | 54.3022387              | 14.1185767                        | 14.1185767              |
| 2034             | 8.5062084                                 | 8.5062084               | 26.8993939                                             | 35.4056023              | 23.9584568                                                            | 32.4646652              | 38.6948133                                                        | 51.9156693              | 13.2207904                        | 13.2207904              |
| 2035             | 8.3411860                                 | 8.3411860               | 26.3228650                                             | 34.6640510              | 23.3951085                                                            | 31.7362945              | 37.8975098                                                        | 51.8793535              | 13.9818437                        | 13.9818437              |

a) Rates are for an interim facility from 1968 through 1987.

b) The relatively minor costs of Del Valle Pumping Plant have been combined with those of South Bay Pumping Plant to simplify the allocation procedure.

**TABLE B-17. Unit Variable OMP&R Component of Transportation Charge**

(in dollars per acre-foot)

Sheet 2 of 4

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued)        |                         |                                           |                         |                                       |                         |                                        |                         |                                         |                         |
|------------------|----------------------------------------|-------------------------|-------------------------------------------|-------------------------|---------------------------------------|-------------------------|----------------------------------------|-------------------------|-----------------------------------------|-------------------------|
|                  | Reach 4<br>Dos Amigos<br>Pumping Plant |                         | Reach 14A<br>Buena Vista<br>Pumping Plant |                         | Reach 15A<br>Teerink<br>Pumping Plant |                         | Reach 16A<br>Chrisman<br>Pumping Plant |                         | Reach 17E<br>Edmonston<br>Pumping Plant |                         |
|                  | Unit Rate                              | Cumulative<br>Unit Rate | Unit Rate                                 | Cumulative<br>Unit Rate | Unit Rate                             | Cumulative<br>Unit Rate | Unit Rate                              | Cumulative<br>Unit Rate | Unit Rate                               | Cumulative<br>Unit Rate |
|                  | [11]                                   | [12]                    | [13]                                      | [14]                    | [15]                                  | [16]                    | [17]                                   | [18]                    | [19]                                    | [20]                    |
| 1961             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1962             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1963             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1964             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1965             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1966             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1967             | 0                                      | 0                       | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1968             | 1.0745886                              | 2.6181208               | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1969             | 0.7051830                              | 1.8118981               | 0                                         | 0                       | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1970             | 0.7838143                              | 1.7303492               | 0.3333333                                 | 2.0636825               | 0                                     | 0                       | 0                                      | 0                       | 0                                       | 0                       |
| 1971             | 0.4151197                              | 1.2959634               | 1.3603318                                 | 2.6562952               | 4.9729730                             | 7.6292682               | 0                                      | 0                       | 0                                       | 0                       |
| 1972             | 0.5689843                              | 1.4720839               | 1.0818018                                 | 2.5538857               | 1.1418280                             | 3.6957137               | 2.2892599                              | 5.9849736               | 7.3206022                               | 13.3055758              |
| 1973             | 0.6025584                              | 1.5411975               | 0.9854386                                 | 2.5266361               | 1.2143719                             | 3.7410080               | 2.1051633                              | 5.8461713               | 7.4512435                               | 13.2974148              |
| 1974             | 0.5766848                              | 1.4739254               | 0.9233319                                 | 2.3972573               | 1.0924098                             | 3.4896671               | 1.9449022                              | 5.4345693               | 6.9004732                               | 12.3350425              |
| 1975             | 0.4638166                              | 1.5600186               | 0.8201332                                 | 2.3801518               | 0.9574493                             | 3.3376011               | 1.9610412                              | 5.2986423               | 6.9962702                               | 12.2949125              |
| 1976             | 0.5196472                              | 1.7137740               | 0.9637643                                 | 2.6775383               | 1.0211874                             | 3.6987257               | 2.2275746                              | 5.9263003               | 7.9384515                               | 13.8647518              |
| 1977             | 0.6172856                              | 2.3852592               | 1.0980643                                 | 3.4833235               | 1.3715867                             | 4.8549102               | 2.9301764                              | 7.7850866               | 9.9900004                               | 17.7840870              |
| 1978             | 0.4578324                              | 2.0737238               | 0.9617095                                 | 3.0354333               | 1.0432294                             | 4.0786627               | 1.9992416                              | 6.0779043               | 7.1214594                               | 13.1993637              |
| 1979             | 0.6624709                              | 2.8145551               | 1.1111583                                 | 3.9257134               | 1.2652451                             | 5.1909585               | 2.7288840                              | 7.9198425               | 9.6837428                               | 17.6035853              |
| 1980             | 0.8090774                              | 2.1864437               | 1.3528383                                 | 3.5392820               | 1.5041463                             | 5.0434283               | 3.2274062                              | 8.2708345               | 11.0353314                              | 19.3061659              |
| 1981             | 1.0965610                              | 3.1793720               | 1.2422925                                 | 4.4216645               | 1.3219771                             | 5.7436416               | 2.9988606                              | 8.7425022               | 10.0207633                              | 18.7632655              |
| 1982             | 0.8365509                              | 2.6102983               | 1.2049224                                 | 3.8152207               | 1.3715109                             | 5.1867316               | 2.9378063                              | 8.1245379               | 10.2603631                              | 18.3851740              |
| 1983             | 0.3691099                              | 1.2255394               | 0.7604543                                 | 1.9859937               | 0.8857383                             | 2.8717320               | 1.8026411                              | 4.6743731               | 5.5653668                               | 10.2397399              |
| 1984             | 0.6642414                              | 1.8489737               | 1.0562168                                 | 2.9051905               | 1.2202995                             | 4.1254900               | 2.5897300                              | 6.7152200               | 8.3105777                               | 15.0257977              |
| 1985             | 0.8780315                              | 2.4966874               | 1.4221464                                 | 3.9188338               | 1.6516280                             | 5.5704618               | 3.5176053                              | 9.0880671               | 11.8858945                              | 20.9739616              |
| 1986             | 1.4047267                              | 4.7304775               | 2.3730496                                 | 7.1035271               | 2.7567993                             | 9.8603264               | 6.0029982                              | 15.8633246              | 20.6708919                              | 36.5342165              |
| 1987             | 1.2966188                              | 4.0549607               | 2.2362590                                 | 6.2912197               | 2.5459999                             | 8.8372196               | 5.3658848                              | 14.2031044              | 17.8358435                              | 32.0389479              |
| 1988             | 1.2001961                              | 3.8152564               | 2.1148911                                 | 5.9301475               | 2.4017135                             | 8.3318610               | 5.0600095                              | 13.3918705              | 16.6769503                              | 30.0686208              |
| 1989             | 1.4991710                              | 5.0367647               | 2.6962512                                 | 7.7330159               | 3.0078924                             | 10.7409083              | 6.6054692                              | 17.3463775              | 22.2552075                              | 39.6015850              |
| 1990             | 1.9023461                              | 6.0493184               | 3.3101004                                 | 9.3594188               | 3.7483042                             | 13.1077230              | 8.7425943                              | 21.8503173              | 31.1242008                              | 52.9745181              |
| 1991             | 1.0592185                              | 4.7832207               | 2.1212585                                 | 6.9044792               | 2.4222131                             | 9.3266923               | 5.7602628                              | 15.0869551              | 20.6196938                              | 35.7066489              |
| 1992             | 0.9064819                              | 3.2582046               | 1.4858303                                 | 4.7440349               | 1.7077285                             | 6.4517634               | 3.6067199                              | 10.0584833              | 12.1335007                              | 22.1919840              |
| 1993             | 0.1664878                              | 0.4191972               | -0.1384508                                | 0.2807464               | -0.1312944                            | 0.1494520               | -0.7173389                             | -1.8524509              | -3.5014056                              | -4.0692925              |
| 1994             | 1.4294391                              | 4.7400773               | 2.5099528                                 | 7.2500301               | 2.7989861                             | 10.0490162              | 6.1401376                              | 16.1891358              | 21.5691939                              | 37.7583477              |
| 1995             | 0.8047106                              | 2.8534719               | 1.3496693                                 | 4.2031412               | 1.4945512                             | 5.6979264               | 3.1864400                              | 8.8841324               | 10.8322270                              | 19.7163594              |
| 1996             | 1.6726383                              | 5.0173881               | 2.5952092                                 | 7.6125973               | 2.8425227                             | 10.4551200              | 6.3087407                              | 16.7638607              | 22.6420778                              | 39.4059385              |
| 1997             | 1.2769880                              | 4.2397005               | 2.5012144                                 | 6.7409149               | 2.6893394                             | 9.4302543               | 6.2890095                              | 15.1926238              | 23.0714697                              | 38.7907335              |
| 1998             | -0.2050857                             | -0.0535261              | -0.3945877                                | -0.4481138              | -0.4188957                            | -0.8670095              | -0.9854414                             | -1.8524509              | -3.5438867                              | -5.3953976              |
| 1999             | 0.8422034                              | 2.7051550               | 1.4022138                                 | 4.1073688               | 1.2802066                             | 5.3875754               | 3.4122984                              | 8.7998738               | 13.6052879                              | 22.4051617              |
| 2000             | 0.9306975                              | 3.2406675               | 1.6377891                                 | 4.8784566               | 1.8007516                             | 6.6792082               | 4.2452324                              | 10.9244406              | 15.5438684                              | 26.4683090              |
| 2001             | 6.0848645                              | 18.7210208              | 11.2089222                                | 29.9299430              | 12.2904776                            | 42.2204206              | 28.4069032                             | 70.6273238              | 106.3233062                             | 176.9506300             |
| 2002             | 2.5678475                              | 8.5538152               | 4.4973316                                 | 13.0511468              | 4.9050420                             | 17.9561888              | 11.3506067                             | 29.3067955              | 42.1780286                              | 71.4848241              |
| 2003             | 3.0449725                              | 9.5862627               | 5.4662061                                 | 15.0524688              | 5.9552204                             | 21.0078692              | 13.8563946                             | 34.8640838              | 51.5224036                              | 86.3864874              |
| 2004             | 3.2119300                              | 10.2786775              | 5.6545833                                 | 15.9332608              | 6.1386667                             | 22.0719275              | 14.3036966                             | 36.3756241              | 53.1773366                              | 89.5529607              |
| 2005             | 3.9275885                              | 12.2178813              | 7.3894399                                 | 19.6073212              | 8.0559637                             | 26.632849               | 18.7794943                             | 46.4427792              | 67.4558144                              | 113.8985936             |
| 2006             | 3.8566685                              | 12.2042088              | 7.2839186                                 | 19.4881274              | 8.8793760                             | 28.3675034              | 19.2573509                             | 47.6248543              | 69.0630361                              | 116.6878904             |
| 2007             | 4.9707136                              | 15.3495018              | 9.1659112                                 | 24.5154130              | 11.2092044                            | 35.7246174              | 24.3340597                             | 60.0586771              | 87.3662368                              | 147.4249139             |
| 2008             | 5.7184737                              | 18.4293250              | 10.8953467                                | 29.3246717              | 13.4029410                            | 42.7067127              | 29.1330778                             | 71.8606905              | 104.6732213                             | 176.5391118             |
| 2009             | 5.2621919                              | 15.5012606              | 9.6770197                                 | 25.1782803              | 10.0779669                            | 35.2562472              | 24.1281921                             | 59.3844393              | 91.5145160                              | 150.8989553             |
| 2010             | 5.5373037                              | 18.3809251              | 10.1978973                                | 28.5788224              | 10.6152531                            | 39.1940755              | 25.4264491                             | 64.6205246              | 96.4431314                              | 161.0636560             |
| 2011             | 4.7879224                              | 14.9543507              | 8.1250794                                 | 23.0794301              | 8.3682704                             | 31.4477005              | 19.9487175                             | 51.3964180              | 75.4735638                              | 126.8699818             |
| 2012             | 5.0994112                              | 15.0083106              | 8.7284399                                 | 23.7367505              | 8.9983948                             | 32.7351453              | 21.4693193                             | 54.2044646              | 81.2549878                              | 135.4594524             |
| 2013             | 5.5988556                              | 18.2772676              | 9.5730018                                 | 27.8502694              | 9.8568828                             | 37.7071522              | 23.5323618                             | 61.2395140              | 89.0613455                              | 150.3008595             |
| 2014             | 6.0790900                              | 17.4771929              | 10.4298987                                | 27.9070916              | 10.7361983                            | 38.6432899              | 25.6493085                             | 64.2925984              | 97.0860499                              | 161.3786483             |
| 2015             | 6.1724788                              | 18.9062492              | 10.5887326                                | 29.4949818              | 10.890495                             | 40.3930313              | 26.0385031                             | 66.4315344              | 98.5593519                              | 164.9908863             |
| 2016             | 6.3988552                              | 21.0525801              | 11.0893215                                | 32.1419016              | 11.4276276                            | 43.5695292              | 27.3250425                             | 70.8945717              | 103.4664489                             | 174.3610206             |
| 2017             | 6.1756572                              | 19.1051959              | 10.6185843                                | 29.7237802              | 10.9324635                            | 40.6562437              | 26.1254620                             | 66.7817057              | 98.8970373                              | 165.6787430             |
| 2018             | 6.5289419                              | 19.4803248              | 11.3396772                                | 30.8200020              | 11.6876129                            | 42.5076149              | 27.9519967                             | 70.4596116              | 105.8483575                             | 176.3079691             |
| 2019             | 6.7271412                              | 21.6238096              | 11.7059690                                | 33.3297786              | 12.0653925                            | 45.3951711              | 28.8668372                             | 74.2620083              | 109.3219042                             | 183.5839125             |
| 2020             | 6.3532788                              | 19.6014300              | 11.0621081                                | 30.6635381              | 11.4084399                            | 42.0719780              | 27.2872992                             | 69.3592772              | 103.3413238                             | 172.7006010             |
| 2021             | 6.3508916                              | 19.3401956              | 11.0633039                                | 30.4034995              | 11.4106062                            | 41.8141057              | 27.2936443                             | 69.1077500              | 103.3673990                             | 172.4751490             |
| 2022             | 6.1606195                              | 18.2020764              | 10.7490773                                | 28.9511537              | 11.0922189                            | 40.0433726              | 26.5302917                             | 66.5736643              | 100.4818093                             | 167.0554736             |
| 2023             | 6.2280474                              | 19.2259658              | 10.8864083                                | 30.1123741              | 11.2360494                            | 41.3484235              | 26.8786017                             | 68.2270252              | 101.8076412                             | 170.0346664             |
| 2024             | 6.4365686                              | 20.6839419              | 11.2213605                                | 31.9053024              | 11.5736814                            | 43.4789838              | 27.6869440                             | 71.1659278              | 104.8599915                             | 176.0259193             |
| 2025             | 6.4154560                              | 18.3755500              | 11.1922024                                | 29.5677524              | 11.5451681                            | 41.1129205              | 27.6188615                             | 68.7317820              | 104.6044795                             | 173.3362615             |
| 2026             | 6.4491062                              | 21.2881137              | 11.2403622                                | 32.1449759              | 11.5925698                            | 44.1210457              | 27.7323427                             | 71.8533884              | 105.0313795                             | 176.8847679             |
| 2027             | 6.3913187                              | 19.7071311              | 11.1737019                                | 30.8808330              | 11.5302877                            | 42.4111207              | 27.5863288                             | 69.9974495              | 104.4890652                             | 174.4865147             |
| 2028             | 6.8793576                              | 19.9754018              | 11.1226503                                | 31.0980521              | 11.4715329                            | 42.5695850              | 27.4404300                             | 70.0100150              | 103.9238966                             | 173.9339116             |
| 2029             | 6.3322976                              | 19.2791607              | 11.0582709                                | 30.3374316              | 11.4100589                            | 41.7474905              | 27.2957802                             | 69.0432707              | 103.3844816                             | 172.4277523             |
| 2030             | 6.3399185                              | 19.8255622              | 11.0390734                                | 30.8646356              | 11.3848546                            | 42.2494902              | 27.2312145                             | 69.4807047              | 103.1292356                             | 172.6099403             |
| 2031             | 6.2982567                              | 18.5246441              | 11.0035322                                | 29.5281763              | 11.3553052                            | 40.8834815              | 27.1622133                             | 68.0456948              | 102.8792384                             | 170.9249332             |
| 2032             | 6.3456777                              | 19.6431218              | 11.0252545                                | 30.6683763              | 11.3666140                            | 42.0349093              | 27.1857292                             | 69.2207195              | 102.9496748                             | 172.1703943             |
| 2033             | 6.8365151                              | 20.9550918              | 11.9762575                                | 32.9313493              | 12.3553141                            | 45.2866634              | 29.5716104                             | 74.8582738              | 112.0165309                             | 187.8748047             |
| 2034             | 6.4523601                              | 19.6731505              | 11.2277496                                | 30.9009001              | 11.5764621                            | 42.4773622              | 27.6920496                             | 70.1694118              | 104.8726457                             | 175.0420575             |
| 2035             | 6.7969726                              | 20.7788163              | 12.1918994                                | 32.9707157              | 12.6251145                            | 45.5958302              | 30.2590063                             | 75.8548365              | 114.7178647                             | 190.5727012             |

**TABLE B-17. Unit Variable OMP&R Component of Transportation Charge**

(in dollars per acre-foot)

Sheet 3 of 4

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued)  |                         |                                           |                         |                                         |                         |                                         |                         |                                   |                         |
|------------------|----------------------------------|-------------------------|-------------------------------------------|-------------------------|-----------------------------------------|-------------------------|-----------------------------------------|-------------------------|-----------------------------------|-------------------------|
|                  | Reach 18A<br>Alamo<br>Powerplant |                         | Reach 22B<br>Pearblossom<br>Pumping Plant |                         | Reach 23<br>Mojave Siphon<br>Powerplant |                         | Reach 26A<br>Devil Canyon<br>Powerplant |                         | Reach 29A<br>Oso<br>Pumping Plant |                         |
|                  | Unit Rate                        | Cumulative<br>Unit Rate | Unit Rate                                 | Cumulative<br>Unit Rate | Unit Rate                               | Cumulative<br>Unit Rate | Unit Rate                               | Cumulative<br>Unit Rate | Unit Rate                         | Cumulative<br>Unit Rate |
|                  | [21]                             | [22]                    | [23]                                      | [24]                    | [25]                                    | [26]                    | [27]                                    | [28]                    | [29]                              | [30]                    |
| 1961             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1962             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1963             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1964             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1965             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1966             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1967             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1968             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1969             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1970             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1971             | 0                                | 0                       | 0                                         | 0                       | 0                                       | 0                       | 0                                       | 0                       | 0                                 | 0                       |
| 1972             | 0                                | 0                       | 14.2519509                                | 27.5575267              | 0                                       | 0                       | -2.3717647                              | 25.1857620              | 1.4212193                         | 14.7267951              |
| 1973             | 0                                | 0                       | 4.4326545                                 | 17.7300693              | 0                                       | 0                       | -8.4298618                              | 9.3002075               | 1.0210537                         | 14.3184685              |
| 1974             | 0                                | 0                       | 3.4431782                                 | 15.7782207              | 0                                       | 0                       | -5.1043660                              | 10.6738547              | 0.9241725                         | 13.2592150              |
| 1975             | 0                                | 0                       | 3.1739313                                 | 15.4688438              | 0                                       | 0                       | -5.6510611                              | 9.8177827               | 0.9362286                         | 13.2311411              |
| 1976             | 0                                | 0                       | 3.9391330                                 | 17.8038848              | 0                                       | 0                       | -6.4449941                              | 11.3589807              | 0.8622774                         | 14.7270292              |
| 1977             | 0                                | 0                       | 3.4988957                                 | 21.2829827              | 0                                       | 0                       | -11.6274558                             | 9.6555269               | 0.9076172                         | 18.6917042              |
| 1978             | 0                                | 0                       | 4.1619043                                 | 17.3612680              | 0                                       | 0                       | -8.1314274                              | 9.2298406               | 0.7314697                         | 13.9308334              |
| 1979             | 0                                | 0                       | 5.2283922                                 | 22.8319775              | 0                                       | 0                       | -9.5825772                              | 13.2494003              | 0.9509677                         | 18.5545530              |
| 1980             | 0                                | 0                       | 4.4253989                                 | 23.7315648              | 0                                       | 0                       | -11.5446606                             | 12.1869042              | 1.4272378                         | 20.7334037              |
| 1981             | 0                                | 0                       | 4.0325337                                 | 22.7957992              | 0                                       | 0                       | -6.7528607                              | 16.0429385              | 1.5690769                         | 20.3323424              |
| 1982             | 0                                | 0                       | 3.7143664                                 | 22.0995404              | 0                                       | 0                       | -6.9141441                              | 15.1853963              | 1.4949290                         | 19.8801030              |
| 1983             | 0                                | 0                       | 1.7592652                                 | 11.9990051              | 0                                       | 0                       | -23.7923414                             | -11.7933363             | 1.2824635                         | 11.5222034              |
| 1984             | 0                                | 0                       | 2.5203002                                 | 17.5460979              | 0                                       | 0                       | -29.2940447                             | -11.7479468             | 1.7818310                         | 16.8076287              |
| 1985             | 0                                | 0                       | 3.5406919                                 | 24.5146535              | 0                                       | 0                       | -30.7672356                             | -6.2525821              | 2.1691578                         | 23.1431194              |
| 1986             | -2.3583180                       | 34.1758985              | 6.0306655                                 | 40.2065640              | 0                                       | 0                       | -29.2499580                             | 16.0566060              | 3.2296473                         | 39.7638638              |
| 1987             | -2.5482255                       | 29.4907224              | 5.0997322                                 | 34.5904546              | 0                                       | 0                       | -29.7006533                             | 4.8898013               | 3.1281318                         | 35.1670797              |
| 1988             | -1.3847067                       | 28.6841141              | 4.7880132                                 | 33.4721273              | 0                                       | 0                       | -29.0334518                             | 4.4386755               | 2.9887414                         | 33.0575622              |
| 1989             | -1.1019487                       | 38.4996363              | 6.4559997                                 | 44.9556360              | 0                                       | 0                       | -28.3706997                             | 16.5849363              | 3.5266078                         | 43.1281928              |
| 1990             | -1.0673268                       | 51.9071913              | 9.0317647                                 | 60.9389560              | 0                                       | 0                       | -28.8797266                             | 32.0592294              | 3.6820302                         | 56.6565483              |
| 1991             | -1.5206590                       | 34.1859899              | 6.1338271                                 | 40.3198170              | 0                                       | 0                       | -30.3294563                             | 9.9903607               | 3.1966277                         | 37.9032766              |
| 1992             | -2.6080003                       | 19.5839837              | 3.6796265                                 | 23.2636102              | 0                                       | 0                       | -29.7938993                             | -6.5302891              | 1.9058052                         | 24.0977892              |
| 1993             | -0.1885524                       | -4.2578449              | -0.9592579                                | -5.2171028              | 0                                       | 0                       | -30.6629489                             | -35.8800517             | 0.1578038                         | -3.9114887              |
| 1994             | -0.1279266                       | 37.6304211              | 6.5139903                                 | 44.1444114              | 0                                       | 0                       | -30.4781656                             | 13.6662458              | 3.0574815                         | 40.8158292              |
| 1995             | -3.4425314                       | 16.2738280              | 3.4305039                                 | 19.7043319              | 0                                       | 0                       | -30.3517624                             | -10.6474305             | 1.5732257                         | 21.2895851              |
| 1996             | -5.9839345                       | 33.4220040              | 6.6794995                                 | 40.1015035              | -2.3423415                              | 37.7591620              | -29.5900574                             | 16.091046               | 3.1318961                         | 42.5378346              |
| 1997             | -4.7847600                       | 34.0059735              | 6.8397922                                 | 40.8457657              | -3.8632009                              | 36.9825648              | -30.6066647                             | 6.3759001               | 2.7928728                         | 41.5836063              |
| 1998             | -5.0614104                       | -10.4573480             | -1.2355351                                | -11.6928831             | -3.7700558                              | -15.4629389             | -30.6550762                             | -46.1180151             | -0.3008626                        | -5.6968002              |
| 1999             | -4.7679511                       | 17.6372106              | 3.5508098                                 | 21.1880204              | -4.9754645                              | 16.2125559              | -29.6766184                             | -13.4640625             | 1.8929287                         | 24.2980904              |
| 2000             | -5.3795304                       | 21.0887786              | 4.6132547                                 | 25.7020333              | -5.2137446                              | 20.4882887              | -30.4802775                             | -9.9919888              | 1.8186581                         | 28.2869671              |
| 2001             | -4.642419                        | 172.3063881             | 29.7998271                                | 202.1062152             | -5.7699535                              | 196.3362617             | -30.9018409                             | 165.4344208             | 13.4272431                        | 190.3778731             |
| 2002             | -5.4660253                       | 66.0187988              | 12.6802813                                | 78.6990801              | -6.4072093                              | 72.2918708              | -30.1661581                             | 42.1257127              | 4.7724074                         | 76.2572315              |
| 2003             | -3.3577630                       | 83.028744               | 15.2059804                                | 98.2347048              | -7.2230635                              | 91.0116413              | -30.5804591                             | 60.131822               | 5.9515747                         | 92.3380621              |
| 2004             | -5.5585791                       | 83.9943816              | 15.6342250                                | 99.6286066              | -7.4295016                              | 92.1991050              | -30.2399666                             | 61.9591384              | 6.2328767                         | 95.7858374              |
| 2005             | -6.5254292                       | 107.3731644             | 20.9387356                                | 128.3119000             | -7.9723844                              | 120.3395156             | -36.6168324                             | 83.7226832              | 7.1228596                         | 121.0214532             |
| 2006             | -2.8363852                       | 113.8515052             | 19.1245811                                | 132.9760863             | -6.0540536                              | 126.9220327             | -22.6285408                             | 104.2934919             | 9.7423521                         | 126.4302425             |
| 2007             | -3.5469034                       | 143.8780105             | 26.2029527                                | 170.0809632             | -5.9865457                              | 164.0944175             | -22.6655042                             | 141.4289133             | 10.7429850                        | 158.1679899             |
| 2008             | -6.1792223                       | 170.3546895             | 39.7923628                                | 210.1470523             | -11.6792032                             | 198.4678491             | -44.4925037                             | 153.9753454             | 11.0326156                        | 187.5665274             |
| 2009             | -5.4956805                       | 145.4032748             | 33.2046694                                | 178.6079442             | -8.5087715                              | 170.0991727             | -40.9743505                             | 129.1248222             | 10.4926466                        | 161.3916019             |
| 2010             | -5.4703689                       | 155.5932871             | 34.9884343                                | 190.5817214             | -8.4523027                              | 182.1294187             | -40.9840584                             | 141.1453603             | 10.9811740                        | 172.0448300             |
| 2011             | -3.7860374                       | 123.0839444             | 22.8805757                                | 145.9645201             | -5.3225547                              | 140.6419654             | -26.4882701                             | 114.1536953             | 9.8213240                         | 136.6913058             |
| 2012             | -4.0304221                       | 131.4290303             | 25.2757267                                | 156.7047570             | -5.7798695                              | 150.9248875             | -27.2106125                             | 123.7142750             | 10.3368540                        | 145.7963064             |
| 2013             | -3.8962474                       | 146.4046121             | 27.4713246                                | 173.8759367             | -5.5746825                              | 168.3012542             | -26.6806144                             | 141.6206398             | 11.3014962                        | 161.6023557             |
| 2014             | -3.9173121                       | 157.4613362             | 29.6858266                                | 187.1471628             | -5.5966388                              | 181.5505240             | -27.1093618                             | 154.4411622             | 12.3559097                        | 173.7345580             |
| 2015             | -3.9250925                       | 161.0657938             | 30.3209700                                | 191.3867638             | -5.6684615                              | 185.7183023             | -27.4414889                             | 158.2768134             | 12.4581196                        | 177.4490059             |
| 2016             | -4.0870079                       | 170.2740127             | 32.3421761                                | 202.6161888             | -5.9530494                              | 196.6631394             | -28.0451643                             | 168.6179751             | 12.8994971                        | 187.2605177             |
| 2017             | -3.9098321                       | 161.7689109             | 30.4636235                                | 192.2325344             | -5.7091712                              | 186.5233632             | -27.7683479                             | 158.7550153             | 12.4806389                        | 178.1593819             |
| 2018             | -4.1826632                       | 172.1253059             | 33.5899478                                | 205.7152537             | -6.3899838                              | 199.3252699             | -28.4853001                             | 170.8399698             | 13.0016583                        | 189.3096274             |
| 2019             | -3.9873831                       | 179.5965294             | 33.0397193                                | 212.6362487             | -5.9241840                              | 206.7120647             | -28.2058170                             | 178.5062477             | 14.0585980                        | 197.6425105             |
| 2020             | -4.0609412                       | 168.6396598             | 32.0119372                                | 200.6515970             | -6.0981792                              | 194.5534178             | -28.9731323                             | 165.5802855             | 13.0286457                        | 185.7292467             |
| 2021             | -4.0726583                       | 168.4024907             | 32.0421015                                | 200.4445922             | -6.1045551                              | 194.3040371             | -28.6890258                             | 165.6150113             | 13.0184371                        | 185.935861              |
| 2022             | -4.0979616                       | 162.9575120             | 30.8978872                                | 193.8553992             | -6.1448703                              | 187.7105289             | -28.3573761                             | 159.3531528             | 12.8058592                        | 179.8613328             |
| 2023             | -4.1514283                       | 165.8832381             | 31.5450534                                | 197.4282915             | -6.2539219                              | 191.1743696             | -28.8741517                             | 162.3002179             | 12.8740090                        | 182.9086754             |
| 2024             | -4.0234522                       | 172.0024671             | 31.9520438                                | 203.9545109             | -6.0642824                              | 197.8902285             | -28.6574923                             | 169.2327362             | 13.4550808                        | 189.4810001             |
| 2025             | -4.0946145                       | 169.2416470             | 32.1667845                                | 201.4084315             | -6.1478393                              | 195.2605922             | -28.3276154                             | 166.9329768             | 13.2905190                        | 186.6267805             |
| 2026             | -4.0697653                       | 168.4024907             | 32.5023082                                | 205.3173108             | -6.1726456                              | 199.1446652             | -29.0294561                             | 170.1152091             | 13.2409762                        | 189.1257441             |
| 2027             | -4.0945225                       | 170.3919922             | 32.0768264                                | 202.4688186             | -6.1382094                              | 196.3306092             | -28.6268905                             | 167.7037187             | 13.3255799                        | 187.8120946             |
| 2028             | -4.0516848                       | 169.8822268             | 32.0750269                                | 201.9752537             | -6.1059301                              | 195.8513236             | -28.8099088                             | 167.0414148             | 13.1457648                        | 187.0796764             |
| 2029             | -4.0719733                       | 168.3557790             | 31.7315877                                | 200.0873667             | -6.1407122                              | 193.9466545             | -28.6108383                             | 165.3358162             | 13.1873191                        | 185.6150714             |
| 2030             | -4.0394681                       | 168.5704722             | 31.7920651                                | 200.3625373             | -6.0837927                              | 194.2787446             | -28.6758159                             | 165.6029287             | 13.0606963                        | 185.6706366             |
| 2031             | -4.1527790                       | 166.7721542             | 31.9969366                                | 198.7690908             | -6.5525791                              | 192.2165117             | -28.4301056                             | 163.7864061             | 13.0066645                        | 183.9315977             |
| 2032             | -3.9939260                       | 168.1746483             | 31.2173683                                | 199.3938366             | -6.2403091                              | 193.1535275             | -28.2123951                             | 164.9411324             | 13.2199752                        | 185.3903695             |
| 2033             | -4.1979118                       | 182.6768929             | 35.0120079                                | 217.6889008             | -6.7005230                              | 210.9883778             | -29.0772003                             | 181.9111775             | 14.0083651                        | 200.8831698             |
| 2034             | -4.0318236                       | 171.0102339             | 31.9521789                                | 202.9624128             | -6.3757357                              | 196.5866771             | -28.0784744                             | 168.5082027             | 13.3933859                        | 188.4354434             |
| 2035             | -4.2531644                       | 186.3195368             | 33.3291486                                | 219.6486854             | -6.5718930                              | 213.0767924             | -29.6039310                             | 183.4728614             | 15.8771816                        | 206.4498828             |

**TABLE B-17. Unit Variable OMP&R Component of Transportation Charge**

(in dollars per acre-foot)

Sheet 4 of 4

| Calendar<br><br>Year | CALIFORNIA AQUEDUCT (continued) |             |                       |             |                                                   |            |                                                            |             |
|----------------------|---------------------------------|-------------|-----------------------|-------------|---------------------------------------------------|------------|------------------------------------------------------------|-------------|
|                      | Reach 29G                       |             | Reach 29J             |             | Reach 31A                                         |            | Reach 33A                                                  |             |
|                      | Warne<br>Powerplant             |             | Castaic<br>Powerplant |             | Las Perillas and<br>Badger Hill<br>Pumping Plants |            | Devil's Den, Bluestone, and<br>Polonio Pass Pumping Plants |             |
|                      | Unit Rate                       | Cumulative  | Unit Rate             | Cumulative  | Unit Rate                                         | Cumulative | Unit Rate                                                  | Cumulative  |
|                      | [31]                            | [32]        | [33]                  | [34]        | [35]                                              | [36]       | [37]                                                       | [38]        |
| 1961                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1962                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1963                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1964                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1965                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1966                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1967                 | 0                               | 0           | 0                     | 0           | 0                                                 | 0          | 0                                                          | 0           |
| 1968                 | 0                               | 0           | 0                     | 0           | 1.5014866                                         | 4.1196074  | 0                                                          | 0           |
| 1969                 | 0                               | 0           | 0                     | 0           | 1.2624065                                         | 3.0743046  | 0                                                          | 0           |
| 1970                 | 0                               | 0           | 0                     | 0           | 1.6309699                                         | 3.3613191  | 0                                                          | 0           |
| 1971                 | 0                               | 0           | 0                     | 0           | 1.4985537                                         | 2.7945171  | 0                                                          | 0           |
| 1972                 | 0                               | 0           | -2.9350830            | 11.7917121  | 1.9517720                                         | 3.4238559  | 0                                                          | 0           |
| 1973                 | 0                               | 0           | -6.8099448            | 7.5085237   | 1.5374531                                         | 3.0786506  | 0                                                          | 0           |
| 1974                 | 0                               | 0           | -7.4013274            | 5.8578876   | 1.5168982                                         | 2.9908236  | 0                                                          | 0           |
| 1975                 | 0                               | 0           | -6.5604921            | 6.6706490   | 1.1130304                                         | 2.6730490  | 0                                                          | 0           |
| 1976                 | 0                               | 0           | -6.7213324            | 8.0056968   | 1.5685447                                         | 3.2823187  | 0                                                          | 0           |
| 1977                 | 0                               | 0           | -30.4985994           | -11.8068952 | 1.7573375                                         | 4.1425967  | 0                                                          | 0           |
| 1978                 | 0                               | 0           | -9.0130187            | 4.9178147   | 1.9429506                                         | 4.0166744  | 0                                                          | 0           |
| 1979                 | 0                               | 0           | -19.0478097           | -0.4932567  | 1.5600341                                         | 4.3745892  | 0                                                          | 0           |
| 1980                 | 0                               | 0           | -7.4485479            | 13.2848558  | 1.5124754                                         | 3.6989191  | 0                                                          | 0           |
| 1981                 | 0                               | 0           | -10.0059379           | 10.3264045  | 1.5414199                                         | 4.7207919  | 0                                                          | 0           |
| 1982                 | -2.1714430                      | 17.7086600  | -9.5987314            | 8.1099286   | 1.7581649                                         | 4.3684632  | 0                                                          | 0           |
| 1983                 | -8.9130752                      | 2.6091282   | -39.8193120           | -37.2101838 | 0.1783064                                         | 1.4038458  | 0                                                          | 0           |
| 1984                 | -15.0246012                     | 1.7830275   | -17.3126964           | -15.5296689 | 0.8560669                                         | 2.7050406  | 0                                                          | 0           |
| 1985                 | -14.7115359                     | 8.4315835   | -38.9450653           | -30.5134818 | 1.2075223                                         | 3.7042097  | 0                                                          | 0           |
| 1986                 | -14.1893653                     | 25.5744985  | -28.1596224           | -2.5851239  | 2.2635962                                         | 6.9940737  | 0                                                          | 0           |
| 1987                 | -14.8696165                     | 20.2974632  | -27.0536484           | -6.7561852  | 1.9135150                                         | 5.9684757  | 0                                                          | 0           |
| 1988                 | -14.7032843                     | 18.3542779  | -25.6857024           | -7.3314245  | 1.7733304                                         | 5.5885868  | 0                                                          | 0           |
| 1989                 | -14.4231503                     | 28.7050425  | -25.3986130           | 3.3064295   | 2.4154074                                         | 7.4521721  | 0                                                          | 0           |
| 1990                 | -14.1850383                     | 42.4715100  | -26.0776141           | 16.3938959  | 3.7962241                                         | 9.8455425  | 0                                                          | 0           |
| 1991                 | -14.7813217                     | 23.1219549  | -25.1420394           | -2.0200845  | 2.4124332                                         | 7.1956539  | 0                                                          | 0           |
| 1992                 | -14.6199453                     | 9.4778439   | -25.1951380           | -15.7172941 | 1.2766497                                         | 4.5348543  | 0                                                          | 0           |
| 1993                 | -10.3386629                     | -14.2501516 | -21.1218951           | -35.3720467 | -1.1726278                                        | -0.7534306 | 0                                                          | 0           |
| 1994                 | -14.7696788                     | 26.0461504  | -26.7435205           | -0.6973701  | 2.3664953                                         | 7.1065726  | 0                                                          | 0           |
| 1995                 | -12.2705911                     | 9.0189940   | -25.6908056           | -16.6718116 | 2.5750190                                         | 5.4284909  | 0                                                          | 0           |
| 1996                 | -14.8515762                     | 27.6862584  | -29.5639188           | -1.8776604  | 2.5837041                                         | 7.6010922  | 0                                                          | 0           |
| 1997                 | -14.9272063                     | 26.6564000  | -27.1541858           | -0.4977858  | 2.7029648                                         | 6.9426653  | 24.4572499                                                 | 31.3999152  |
| 1998                 | -8.6041243                      | -14.3009245 | -22.2303491           | -36.5312736 | -0.4719744                                        | -0.5255005 | -3.9178748                                                 | -4.4433753  |
| 1999                 | -15.4517685                     | 8.8463219   | -27.8324731           | -18.9861512 | 1.3273109                                         | 4.0324659  | 9.8021998                                                  | 13.8346657  |
| 2000                 | -14.1657262                     | 14.1212409  | -26.9670099           | -12.8457690 | 1.8842617                                         | 5.1249292  | 14.2514058                                                 | 19.3763350  |
| 2001                 | -16.7349298                     | 173.6429433 | -29.2914155           | 144.3515278 | 12.2866597                                        | 31.0076805 | 92.6567756                                                 | 123.6644561 |
| 2002                 | -13.2004532                     | 63.0567783  | -23.7780801           | 39.2786982  | 5.3023584                                         | 13.8561736 | 41.2910941                                                 | 55.1472677  |
| 2003                 | -13.9757183                     | 78.3623438  | -23.6270529           | 54.7325909  | 6.1431169                                         | 15.7293796 | 47.1787833                                                 | 62.9081629  |
| 2004                 | -14.1574752                     | 81.6283622  | -23.6679973           | 57.9603649  | 6.2519570                                         | 16.5306345 | 50.7266903                                                 | 67.2573248  |
| 2005                 | -14.2938791                     | 106.7275741 | -23.7301832           | 82.9973909  | 8.0069021                                         | 20.2247834 | 60.5160134                                                 | 80.7407968  |
| 2006                 | -14.7385970                     | 111.6916455 | -26.2160936           | 85.4755519  | 8.0172156                                         | 20.2214244 | 49.0850937                                                 | 69.3065181  |
| 2007                 | -11.8024282                     | 146.3654707 | -21.2107248           | 125.1547459 | 10.9089067                                        | 26.2584085 | 93.2476149                                                 | 119.5060234 |
| 2008                 | -14.9471457                     | 172.6193817 | -26.2930252           | 146.3263565 | 10.1894580                                        | 28.6187830 | 60.3876347                                                 | 89.0064177  |
| 2009                 | -14.6581131                     | 146.7334888 | -24.8688316           | 121.8646572 | 12.2508947                                        | 27.7521553 | 79.6438938                                                 | 107.3960491 |
| 2010                 | -14.6892419                     | 157.3555881 | -25.0248561           | 132.3307320 | 12.7662137                                        | 31.1471388 | 83.3069960                                                 | 114.4541348 |
| 2011                 | -13.2297879                     | 123.4615179 | -22.4386091           | 101.0229088 | 12.7688252                                        | 27.7231759 | 83.3379586                                                 | 111.0611345 |
| 2012                 | -13.3723176                     | 132.4239888 | -22.8144009           | 109.6095879 | 13.6584002                                        | 28.6667108 | 86.1861297                                                 | 114.8528405 |
| 2013                 | -13.5117115                     | 148.0906442 | -23.0151874           | 125.0754568 | 14.8779882                                        | 33.1552558 | 94.5462531                                                 | 127.7015089 |
| 2014                 | -13.9233382                     | 159.8112198 | -23.6465534           | 136.1646664 | 15.8920615                                        | 33.3692544 | 101.4977369                                                | 134.8669913 |
| 2015                 | -13.8425360                     | 163.6064699 | -23.4962180           | 140.1102519 | 16.1145282                                        | 35.0207774 | 103.0226598                                                | 138.0434372 |
| 2016                 | -14.2025771                     | 173.0579406 | -24.1267536           | 148.9311870 | 16.2680463                                        | 37.3206264 | 104.0751506                                                | 141.3957770 |
| 2017                 | -13.9258575                     | 164.2335244 | -23.6734109           | 140.5601135 | 16.0488651                                        | 35.1540610 | 102.5725622                                                | 137.7266232 |
| 2018                 | -14.0415287                     | 175.2680987 | -23.9285500           | 151.3395487 | 16.4814390                                        | 35.9617638 | 105.5378794                                                | 141.4996432 |
| 2019                 | -14.8939517                     | 182.7485588 | -25.4923127           | 157.2562461 | 16.8617389                                        | 38.4855485 | 108.1447283                                                | 146.6302768 |
| 2020                 | -14.5769742                     | 171.1522725 | -24.8481790           | 146.3040935 | 15.9976082                                        | 35.5990382 | 102.2212085                                                | 137.8202467 |
| 2021                 | -14.5861228                     | 170.9074633 | -24.8810648           | 146.0263985 | 15.9731479                                        | 35.3133435 | 102.0534527                                                | 137.3667962 |
| 2022                 | -14.8011638                     | 165.0601690 | -25.2539205           | 139.8062485 | 15.4908520                                        | 33.6929284 | 98.7473762                                                 | 132.4403046 |
| 2023                 | -14.7968307                     | 168.1118447 | -25.2466674           | 142.8651773 | 15.5765494                                        | 34.8025152 | 99.3348751                                                 | 134.1373903 |
| 2024                 | -14.9259280                     | 174.5550721 | -25.4697527           | 149.0853194 | 16.1356475                                        | 36.8195894 | 103.1674163                                                | 139.9870057 |
| 2025                 | -14.8087894                     | 171.8179911 | -25.2676602           | 146.5503309 | 16.0645474                                        | 34.4400974 | 102.6800758                                                | 137.1201732 |
| 2026                 | -14.6543486                     | 175.4713955 | -25.0013368           | 150.4700587 | 16.1723996                                        | 37.4605133 | 103.4194320                                                | 140.8799453 |
| 2027                 | -14.9747134                     | 172.8373812 | -25.5508815           | 147.2864997 | 15.9335540                                        | 35.6406851 | 101.7820589                                                | 137.4227442 |
| 2028                 | -14.6676191                     | 172.4120573 | -25.0223302           | 147.3897271 | 16.0418131                                        | 36.0172149 | 102.5242864                                                | 138.5415013 |
| 2029                 | -14.9017141                     | 170.7133573 | -25.4280627           | 145.2852946 | 15.8418649                                        | 35.1210256 | 101.1536253                                                | 136.2746509 |
| 2030                 | -14.6419513                     | 171.0286853 | -24.9800081           | 146.0486772 | 15.9668726                                        | 35.7923438 | 102.0105661                                                | 137.8030009 |
| 2031                 | -14.6871435                     | 169.2444542 | -25.0722893           | 144.1721649 | 15.7530791                                        | 34.2777232 | 100.5449659                                                | 134.8226891 |
| 2032                 | -14.7089599                     | 170.6814096 | -25.1864653           | 145.4949443 | 16.0602816                                        | 35.7034034 | 102.6508388                                                | 138.3542422 |
| 2033                 | -14.7280339                     | 186.1551359 | -25.2705553           | 160.8845806 | 16.8512039                                        | 37.8062957 | 108.0725480                                                | 145.8788437 |
| 2034                 | -14.7278788                     | 173.7075646 | -25.2263838           | 148.4811808 | 16.2444798                                        | 35.9176303 | 103.9135053                                                | 139.8311356 |
| 2035                 | -17.8001752                     | 188.6497076 | -30.5411124           | 158.1085952 | 15.9195670                                        | 36.6983833 | 101.6862005                                                | 138.3845838 |



**TABLE B-18. Variable OMP&R Component of  
Transportation Charge for Each Contractor <sup>a</sup>**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                        |            | SOUTH BAY AREA                         |                                        |                                            |             | CENTRAL COASTAL AREA                   |                                      |             |
|------------------|--------------------------|------------------------|------------|----------------------------------------|----------------------------------------|--------------------------------------------|-------------|----------------------------------------|--------------------------------------|-------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total      | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total       | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total       |
|                  | [1]                      | [2]                    | [3]        | [4]                                    | [5]                                    | [6]                                        | [7]         | [8]                                    | [9]                                  | [10]        |
| 1961             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0           |
| 1962             | 0                        | 0                      | 0          | 2,051                                  | 34,919                                 | 0                                          | 36,970      | 0                                      | 0                                    | 0           |
| 1963             | 0                        | 0                      | 0          | 7,900                                  | 49,811                                 | 0                                          | 57,711      | 0                                      | 0                                    | 0           |
| 1964             | 0                        | 0                      | 0          | 5,931                                  | 68,203                                 | 0                                          | 74,134      | 0                                      | 0                                    | 0           |
| 1965             | 0                        | 0                      | 0          | 10,918                                 | 68,765                                 | 62,926                                     | 142,609     | 0                                      | 0                                    | 0           |
| 1966             | 0                        | 0                      | 0          | 19,330                                 | 52,135                                 | 121,141                                    | 192,606     | 0                                      | 0                                    | 0           |
| 1967             | 0                        | 0                      | 0          | 19,958                                 | 53,785                                 | 163,255                                    | 236,998     | 0                                      | 0                                    | 0           |
| 1968             | 6,989                    | 0                      | 6,989      | 29,899                                 | 120,995                                | 341,768                                    | 492,652     | 0                                      | 0                                    | 0           |
| 1969             | 8,551                    | 0                      | 8,551      | 31,859                                 | 3,904                                  | 298,968                                    | 334,731     | 0                                      | 0                                    | 0           |
| 1970             | 13,598                   | 0                      | 13,598     | 49,687                                 | 0                                      | 431,443                                    | 481,130     | 0                                      | 0                                    | 0           |
| 1971             | 10,609                   | 0                      | 10,609     | 23,842                                 | 28,328                                 | 416,329                                    | 468,499     | 0                                      | 0                                    | 0           |
| 1972             | 14,434                   | 0                      | 14,434     | 54,838                                 | 144,669                                | 524,208                                    | 723,715     | 0                                      | 0                                    | 0           |
| 1973             | 14,449                   | 0                      | 14,449     | 18,398                                 | 15,590                                 | 547,807                                    | 581,795     | 0                                      | 0                                    | 0           |
| 1974             | 17,473                   | 0                      | 17,473     | 9,499                                  | 29                                     | 636,186                                    | 645,714     | 0                                      | 0                                    | 0           |
| 1975             | 14,779                   | 0                      | 14,779     | 22,318                                 | 4,765                                  | 425,284                                    | 452,367     | 0                                      | 0                                    | 0           |
| 1976             | 20,856                   | 0                      | 20,856     | 97,874                                 | 121,693                                | 502,769                                    | 722,336     | 0                                      | 0                                    | 0           |
| 1977             | 22,635                   | 0                      | 22,635     | 82,578                                 | 123,044                                | 497,792                                    | 703,414     | 0                                      | 0                                    | 0           |
| 1978             | 21,692                   | 0                      | 21,692     | 74,911                                 | 39,986                                 | 652,960                                    | 767,757     | 0                                      | 0                                    | 0           |
| 1979             | 16,237                   | 0                      | 16,237     | 137,101                                | 77,145                                 | 652,629                                    | 866,875     | 0                                      | 0                                    | 0           |
| 1980             | 19,945                   | 0                      | 19,945     | 98,743                                 | 64,891                                 | 517,531                                    | 681,165     | 0                                      | 0                                    | 0           |
| 1981             | 23,842                   | 0                      | 23,842     | 126,437                                | 141,456                                | 567,968                                    | 835,861     | 0                                      | 0                                    | 0           |
| 1982             | 12,157                   | 0                      | 12,157     | 97,117                                 | 46,742                                 | 651,246                                    | 795,105     | 0                                      | 0                                    | 0           |
| 1983             | 2,342                    | 0                      | 2,342      | 8,171                                  | 5,412                                  | 148,743                                    | 162,326     | 0                                      | 0                                    | 0           |
| 1984             | 4,822                    | 0                      | 4,822      | 26,707                                 | 13,141                                 | 349,314                                    | 389,162     | 0                                      | 0                                    | 0           |
| 1985             | 10,188                   | 0                      | 10,188     | 79,863                                 | 102,790                                | 466,291                                    | 648,944     | 0                                      | 0                                    | 0           |
| 1986             | 15,501                   | 0                      | 15,501     | 112,370                                | 131,118                                | 932,090                                    | 1,175,578   | 0                                      | 0                                    | 0           |
| 1987             | 27,223                   | 0                      | 27,223     | 216,211                                | 234,290                                | 812,631                                    | 1,263,132   | 0                                      | 0                                    | 0           |
| 1988             | 31,265                   | 11,533                 | 42,798     | 229,578                                | 287,129                                | 779,537                                    | 1,306,244   | 0                                      | 0                                    | 0           |
| 1989             | 37,874                   | 66,850                 | 104,724    | 306,533                                | 304,275                                | 1,051,562                                  | 1,662,370   | 0                                      | 0                                    | 0           |
| 1990             | 54,736                   | 105,421                | 160,157    | 524,114                                | 502,545                                | 1,456,008                                  | 2,482,667   | 0                                      | 0                                    | 0           |
| 1991             | 8,159                    | 18,824                 | 26,983     | 105,736                                | 142,105                                | 316,839                                    | 564,680     | 0                                      | (2,636)                              | (2,636)     |
| 1992             | 12,515                   | 23,808                 | 36,323     | 93,772                                 | 122,436                                | 273,849                                    | 490,057     | 0                                      | 0                                    | 0           |
| 1993             | (7,223)                  | (17,293)               | (24,516)   | (36,162)                               | (12,912)                               | (78,024)                                   | (127,098)   | 0                                      | 0                                    | 0           |
| 1994             | 39,106                   | 77,257                 | 116,363    | 231,800                                | 257,533                                | 642,006                                    | 1,131,339   | 0                                      | 0                                    | 0           |
| 1995             | 15,701                   | 36,724                 | 52,425     | 160,663                                | 93,610                                 | 151,287                                    | 405,560     | 0                                      | 0                                    | 0           |
| 1996             | 31,526                   | 96,570                 | 128,096    | 214,883                                | 186,694                                | 735,431                                    | 1,137,008   | 502                                    | 0                                    | 502         |
| 1997             | 29,683                   | 116,555                | 146,238    | 351,185                                | 219,799                                | 912,861                                    | 1,483,845   | 34,932                                 | 233,584                              | 268,516     |
| 1998             | (6,178)                  | (18,511)               | (24,689)   | (6,218)                                | (16,448)                               | (65,208)                                   | (87,874)    | (15,961)                               | (82,727)                             | (98,688)    |
| 1999             | 14,757                   | 52,720                 | 67,477     | 243,434                                | 193,968                                | 450,667                                    | 888,069     | 51,783                                 | 278,589                              | 330,372     |
| 2000             | 21,999                   | 94,213                 | 116,212    | 377,922                                | 239,083                                | 754,700                                    | 1,371,705   | 76,769                                 | 440,637                              | 517,406     |
| 2001             | 289,309                  | 531,337                | 820,646    | 1,679,427                              | 991,540                                | 2,835,762                                  | 5,506,729   | 529,655                                | 2,342,947                            | 2,872,602   |
| 2002             | 88,266                   | 260,234                | 348,500    | 1,044,099                              | 626,264                                | 1,420,252                                  | 3,090,615   | 240,166                                | 1,530,422                            | 1,770,588   |
| 2003             | 127,364                  | 258,679                | 386,043    | 1,047,074                              | 630,062                                | 2,237,611                                  | 3,914,747   | 280,147                                | 1,696,611                            | 1,976,758   |
| 2004             | 141,905                  | 337,958                | 479,863    | 1,281,030                              | 603,718                                | 1,559,326                                  | 3,444,074   | 280,136                                | 1,997,943                            | 2,278,079   |
| 2005             | 192,704                  | 374,839                | 567,543    | 1,465,137                              | 850,315                                | 2,484,981                                  | 4,800,433   | 343,229                                | 1,884,813                            | 2,228,042   |
| 2006             | 612,268                  | 869,696                | 1,481,964  | 1,987,206                              | 1,314,443                              | 2,537,608                                  | 5,839,257   | 1,769,257                              | 2,402,441                            | 4,171,698   |
| 2007             | 861,269                  | 1,155,069              | 2,016,338  | 2,702,860                              | 1,518,810                              | 2,894,110                                  | 7,115,780   | 576,497                                | 5,435,851                            | 6,012,348   |
| 2008             | 995,852                  | 1,359,482              | 2,355,334  | 3,501,728                              | 1,725,781                              | 3,522,002                                  | 8,749,511   | 2,225,160                              | 4,048,546                            | 6,273,706   |
| 2009             | 545,114                  | 689,497                | 1,234,611  | 3,498,700                              | 1,740,546                              | 3,456,745                                  | 8,695,991   | 2,684,901                              | 4,885,017                            | 7,569,918   |
| 2010             | 581,321                  | 719,688                | 1,301,009  | 3,825,955                              | 1,907,563                              | 3,823,758                                  | 9,557,276   | 2,861,353                              | 5,206,061                            | 8,067,414   |
| 2011             | 591,454                  | 720,495                | 1,311,949  | 3,172,102                              | 1,543,758                              | 4,149,565                                  | 8,865,425   | 2,776,528                              | 5,051,727                            | 7,828,255   |
| 2012             | 623,045                  | 744,191                | 1,367,236  | 3,228,909                              | 1,570,454                              | 4,225,773                                  | 9,025,136   | 2,871,321                              | 5,224,196                            | 8,095,517   |
| 2013             | 695,878                  | 812,682                | 1,508,560  | 3,677,179                              | 1,793,768                              | 4,801,996                                  | 10,272,943  | 3,192,538                              | 5,808,631                            | 9,001,169   |
| 2014             | 763,636                  | 870,057                | 1,633,693  | 3,761,472                              | 1,829,452                              | 4,922,821                                  | 10,513,745  | 3,371,675                              | 6,134,560                            | 9,506,235   |
| 2015             | 802,042                  | 883,580                | 1,685,622  | 3,910,203                              | 1,905,082                              | 5,110,971                                  | 10,926,256  | 3,451,086                              | 6,279,044                            | 9,730,130   |
| 2016             | 835,502                  | 892,886                | 1,728,388  | 4,094,368                              | 2,000,415                              | 5,340,640                                  | 11,435,423  | 3,534,894                              | 6,431,528                            | 9,966,422   |
| 2017             | 847,547                  | 881,277                | 1,728,824  | 3,914,066                              | 1,907,769                              | 5,114,434                                  | 10,936,269  | 3,443,166                              | 6,264,633                            | 9,707,799   |
| 2018             | 899,870                  | 906,227                | 1,806,097  | 3,996,770                              | 1,947,957                              | 5,222,768                                  | 11,167,495  | 3,537,491                              | 6,436,253                            | 9,973,744   |
| 2019             | 950,895                  | 928,296                | 1,879,191  | 4,224,029                              | 2,063,341                              | 5,510,616                                  | 11,797,986  | 3,665,757                              | 6,669,625                            | 10,335,382  |
| 2020             | 921,939                  | 880,274                | 1,802,213  | 3,931,580                              | 1,918,143                              | 5,133,716                                  | 10,983,439  | 3,445,506                              | 6,268,892                            | 9,714,398   |
| 2021             | 924,633                  | 879,127                | 1,803,760  | 3,906,247                              | 1,905,182                              | 5,101,827                                  | 10,913,256  | 3,434,170                              | 6,248,266                            | 9,682,436   |
| 2022             | 893,252                  | 851,898                | 1,745,150  | 3,740,904                              | 1,823,115                              | 4,888,693                                  | 10,452,712  | 3,311,008                              | 6,024,180                            | 9,335,188   |
| 2023             | 898,828                  | 856,737                | 1,755,565  | 3,834,032                              | 1,871,047                              | 5,005,369                                  | 10,710,448  | 3,353,435                              | 6,101,373                            | 9,454,808   |
| 2024             | 935,205                  | 888,303                | 1,823,508  | 4,037,776                              | 1,972,421                              | 5,267,513                                  | 11,277,710  | 3,499,675                              | 6,367,449                            | 9,867,124   |
| 2025             | 930,579                  | 884,287                | 1,814,866  | 3,840,313                              | 1,870,178                              | 5,021,338                                  | 10,731,829  | 3,428,004                              | 6,237,048                            | 9,665,052   |
| 2026             | 937,598                  | 890,377                | 1,827,975  | 4,092,236                              | 2,000,475                              | 5,335,694                                  | 11,428,405  | 3,521,999                              | 6,408,065                            | 9,930,064   |
| 2027             | 922,057                  | 876,892                | 1,798,949  | 3,925,631                              | 1,915,846                              | 5,124,761                                  | 10,966,238  | 3,435,569                              | 6,250,811                            | 9,686,380   |
| 2028             | 929,100                  | 883,004                | 1,812,104  | 3,930,759                              | 1,919,443                              | 5,129,355                                  | 10,979,557  | 3,463,538                              | 6,301,699                            | 9,765,237   |
| 2029             | 916,090                  | 871,715                | 1,787,805  | 3,878,835                              | 1,892,147                              | 5,065,371                                  | 10,836,353  | 3,406,866                              | 6,198,589                            | 9,605,455   |
| 2030             | 924,226                  | 878,775                | 1,803,001  | 3,945,050                              | 1,925,415                              | 5,149,923                                  | 11,020,388  | 3,445,075                              | 6,268,107                            | 9,713,182   |
| 2031             | 910,314                  | 866,704                | 1,777,018  | 3,804,385                              | 1,854,114                              | 4,971,534                                  | 10,630,033  | 3,370,567                              | 6,132,545                            | 9,503,112   |
| 2032             | 930,303                  | 884,046                | 1,814,349  | 3,946,901                              | 1,925,462                              | 5,154,025                                  | 11,026,388  | 3,458,856                              | 6,293,181                            | 9,752,037   |
| 2033             | 981,764                  | 928,702                | 1,910,466  | 4,160,094                              | 2,030,590                              | 5,430,224                                  | 11,620,908  | 3,646,971                              | 6,635,445                            | 10,282,416  |
| 2034             | 942,287                  | 894,446                | 1,836,733  | 3,974,905                              | 1,938,637                              | 5,191,560                                  | 11,105,102  | 3,495,778                              | 6,360,359                            | 9,856,137   |
| 2035             | 921,146                  | 876,102                | 1,797,248  | 3,979,408                              | 1,945,679                              | 5,187,935                                  | 11,113,022  | 3,459,615                              | 6,294,561                            | 9,754,176   |
| TOTAL            | 26,846,804               | 28,952,230             | 55,799,034 | 123,203,121                            | 63,456,345                             | 171,433,271                                | 358,092,737 | 96,959,614                             | 186,988,866                          | 283,948,480 |

a) Table B-18 includes extra peaking charges for additional power shown in Table 9.

**TABLE B-18. Variable OMP&R Component of  
Transportation Charge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |              |                       |                               |                                                   |             |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|--------------|-----------------------|-------------------------------|---------------------------------------------------|-------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |              | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare<br>Lake Basin<br>Water Storage<br>District | Total       |
|                  |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Agricultural |                       |                               |                                                   |             |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]         | [16]                  | [17]                          | [18]                                              | [19]        |
| 1961             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1962             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1963             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1964             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1965             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1966             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1967             | 0                                    | 0                                             | 0                                             | 0                              | 0            | 0                     | 0                             | 0                                                 | 0           |
| 1968             | 68,977                               | 5,176                                         | 0                                             | 0                              | 440,922      | 2,355                 | 4,760                         | 65,680                                            | 587,870     |
| 1969             | 56,774                               | 101                                           | 0                                             | 0                              | 321,387      | 181                   | 3,338                         | 17,956                                            | 399,737     |
| 1970             | 69,818                               | 6,811                                         | 0                                             | 0                              | 470,867      | 0                     | 5,595                         | 16,550                                            | 569,641     |
| 1971             | 53,097                               | 7,747                                         | 0                                             | 0                              | 769,054      | 4,785                 | 6,353                         | 158,419                                           | 999,455     |
| 1972             | 62,365                               | 8,515                                         | 0                                             | 0                              | 1,151,788    | 2,057                 | 7,375                         | 379,686                                           | 1,611,786   |
| 1973             | 33,931                               | 4,615                                         | 0                                             | 0                              | 770,121      | 2,307                 | 3,017                         | 77,630                                            | 891,621     |
| 1974             | 49,114                               | 4,413                                         | 0                                             | 46,752                         | 677,660      | 2,206                 | 3,114                         | 106,332                                           | 889,591     |
| 1975             | 63,140                               | 4,671                                         | 0                                             | 34,580                         | 848,249      | 2,491                 | 3,920                         | 134,295                                           | 1,091,346   |
| 1976             | 70,851                               | 5,132                                         | 0                                             | 94,653                         | 966,820      | 2,737                 | 4,910                         | 100,597                                           | 1,245,701   |
| 1977             | 26,565                               | 1,758                                         | 0                                             | 84,875                         | 498,624      | 3,644                 | 2,602                         | 43,067                                            | 661,135     |
| 1978             | 108,944                              | 938                                           | 0                                             | 190,675                        | 1,616,975    | 4,319                 | 6,294                         | 24,901                                            | 1,953,046   |
| 1979             | 107,956                              | 4,871                                         | 0                                             | 194,048                        | 2,371,175    | 5,602                 | 13,172                        | 434,472                                           | 3,131,297   |
| 1980             | 88,746                               | 1,935                                         | 0                                             | 121,603                        | 1,731,588    | 4,762                 | 7,766                         | 163,301                                           | 2,119,701   |
| 1981             | 129,687                              | 18,533                                        | 0                                             | 263,077                        | 2,398,339    | 7,275                 | 8,904                         | 263,922                                           | 3,089,737   |
| 1982             | 108,561                              | 937                                           | 0                                             | 145,246                        | 2,375,404    | 4,541                 | 6,763                         | 48,137                                            | 2,689,589   |
| 1983             | 61,443                               | 0                                             | 0                                             | 13,954                         | 929,183      | 5,662                 | 3,232                         | 1,218                                             | 1,014,692   |
| 1984             | 82,423                               | 0                                             | 0                                             | 216,437                        | 1,996,259    | 5,946                 | 7,475                         | 10,496                                            | 2,319,036   |
| 1985             | 114,571                              | 12,938                                        | 0                                             | 242,645                        | 2,567,184    | 8,422                 | 8,815                         | 271,970                                           | 3,226,545   |
| 1986             | 236,756                              | 5,513                                         | 0                                             | 377,798                        | 4,876,960    | 17,433                | 16,927                        | 376,088                                           | 5,907,475   |
| 1987             | 187,090                              | 10,273                                        | 0                                             | 504,168                        | 4,230,949    | 16,140                | 15,529                        | 375,604                                           | 5,339,753   |
| 1988             | 188,170                              | 14,894                                        | 0                                             | 524,965                        | 4,250,194    | 15,528                | 11,928                        | 374,528                                           | 5,380,207   |
| 1989             | 285,261                              | 15,450                                        | 0                                             | 681,238                        | 6,158,648    | 20,063                | 21,693                        | 649,604                                           | 7,831,957   |
| 1990             | 218,786                              | 7,710                                         | 0                                             | 845,877                        | 4,778,185    | 12,056                | 12,072                        | 344,008                                           | 6,218,694   |
| 1991             | 4,393                                | 1,047                                         | 0                                             | 185,013                        | 47,869       | 0                     | 521                           | 10,331                                            | 249,174     |
| 1992             | 76,840                               | 4,426                                         | 0                                             | 227,332                        | 1,699,824    | 6,059                 | 5,222                         | 151,055                                           | 2,170,758   |
| 1993             | 20,064                               | 4,843                                         | 0                                             | 78,585                         | 340,588      | 2,090                 | 1,467                         | 123,913                                           | 571,550     |
| 1994             | 135,626                              | 7,854                                         | 0                                             | 471,316                        | 3,417,815    | 9,967                 | 10,102                        | 293,748                                           | 4,346,428   |
| 1995             | 181,772                              | 4,611                                         | 0                                             | 409,656                        | 3,437,735    | 11,619                | 10,492                        | 288,010                                           | 4,343,895   |
| 1996             | 286,064                              | 9,577                                         | 0                                             | 715,404                        | 6,328,965    | 16,403                | 16,403                        | 1,196,303                                         | 8,573,755   |
| 1997             | 308,515                              | 0                                             | 0                                             | 650,416                        | 5,627,735    | 21,039                | 15,559                        | 94,838                                            | 6,697,063   |
| 1998             | 19,652                               | (28)                                          | 0                                             | 63,221                         | 63,450       | (1)                   | 1,318                         | (1,107)                                           | 146,505     |
| 1999             | 161,490                              | 8,592                                         | 0                                             | 470,360                        | 3,349,552    | 10,821                | 9,074                         | 790,700                                           | 4,800,589   |
| 2000             | 196,187                              | 5,830                                         | 0                                             | 417,007                        | 4,033,798    | 11,666                | 10,413                        | 642,667                                           | 5,317,568   |
| 2001             | 777,821                              | 25,461                                        | 0                                             | 442,707                        | 11,535,052   | 29,205                | 45,389                        | 1,115,061                                         | 13,970,696  |
| 2002             | 418,442                              | 12,018                                        | 0                                             | 809,800                        | 7,293,812    | 24,413                | 29,241                        | 793,881                                           | 9,381,607   |
| 2003             | 441,754                              | 13,766                                        | 0                                             | 1,061,838                      | 9,252,120    | 35,392                | 27,905                        | 1,014,620                                         | 11,847,395  |
| 2004             | 504,583                              | 36,620                                        | 0                                             | 1,368,881                      | 8,654,665    | 93,072                | 32,722                        | 835,324                                           | 11,525,867  |
| 2005             | 998,003                              | 46,843                                        | 0                                             | 1,133,280                      | 17,846,799   | 241,987               | 34,769                        | 1,710,528                                         | 22,012,209  |
| 2006             | 715,801                              | 51,697                                        | 0                                             | 1,370,671                      | 15,586,354   | 121,436               | 41,137                        | 1,205,422                                         | 19,092,518  |
| 2007             | 880,186                              | 46,049                                        | 0                                             | 2,009,327                      | 17,054,013   | 146,154               | 59,159                        | 1,472,355                                         | 21,667,243  |
| 2008             | 1,056,793                            | 55,288                                        | 0                                             | 2,411,594                      | 20,395,905   | 174,593               | 72,452                        | 1,767,778                                         | 25,934,403  |
| 2009             | 888,889                              | 46,504                                        | 0                                             | 2,244,888                      | 17,264,496   | 147,976               | 58,363                        | 1,486,912                                         | 22,138,028  |
| 2010             | 1,054,017                            | 55,143                                        | 0                                             | 2,640,997                      | 19,947,794   | 174,928               | 73,209                        | 1,763,135                                         | 25,709,223  |
| 2011             | 857,527                              | 44,863                                        | 0                                             | 2,144,411                      | 16,365,941   | 143,045               | 57,949                        | 1,434,451                                         | 21,048,187  |
| 2012             | 860,622                              | 45,025                                        | 0                                             | 2,161,617                      | 16,664,530   | 143,818               | 56,481                        | 1,439,627                                         | 21,371,720  |
| 2013             | 1,048,073                            | 54,832                                        | 0                                             | 2,615,214                      | 19,836,520   | 174,608               | 72,267                        | 1,753,192                                         | 25,554,706  |
| 2014             | 1,002,195                            | 52,432                                        | 0                                             | 2,521,434                      | 19,478,323   | 167,472               | 64,970                        | 1,676,447                                         | 24,963,273  |
| 2015             | 1,084,141                            | 56,719                                        | 0                                             | 2,716,347                      | 20,777,935   | 180,838               | 72,582                        | 1,813,525                                         | 26,702,087  |
| 2016             | 1,207,218                            | 63,158                                        | 0                                             | 3,013,607                      | 22,789,812   | 200,856               | 83,526                        | 2,019,406                                         | 29,377,583  |
| 2017             | 1,095,549                            | 57,316                                        | 0                                             | 2,743,672                      | 20,952,884   | 182,669               | 73,698                        | 1,832,609                                         | 26,938,397  |
| 2018             | 1,117,060                            | 58,441                                        | 0                                             | 2,806,087                      | 21,521,431   | 186,291               | 73,823                        | 1,868,592                                         | 27,631,725  |
| 2019             | 1,239,974                            | 64,871                                        | 0                                             | 3,100,589                      | 23,511,636   | 206,352               | 84,911                        | 2,074,199                                         | 30,282,532  |
| 2020             | 1,124,005                            | 58,804                                        | 0                                             | 2,817,978                      | 21,504,971   | 187,271               | 75,514                        | 1,880,208                                         | 27,648,751  |
| 2021             | 1,109,025                            | 58,021                                        | 0                                             | 2,782,851                      | 21,277,495   | 184,832               | 74,039                        | 1,855,150                                         | 27,341,413  |
| 2022             | 1,043,762                            | 54,606                                        | 0                                             | 2,624,621                      | 20,162,424   | 174,095               | 68,636                        | 1,745,980                                         | 25,874,124  |
| 2023             | 1,102,475                            | 57,678                                        | 0                                             | 2,764,709                      | 21,094,050   | 183,648               | 74,088                        | 1,844,193                                         | 27,120,841  |
| 2024             | 1,186,079                            | 62,052                                        | 0                                             | 2,966,299                      | 22,498,024   | 197,385               | 81,210                        | 1,984,045                                         | 28,975,094  |
| 2025             | 1,053,709                            | 55,127                                        | 0                                             | 2,655,135                      | 20,488,816   | 175,884               | 68,173                        | 1,762,620                                         | 26,259,464  |
| 2026             | 1,220,724                            | 63,864                                        | 0                                             | 3,047,921                      | 23,028,708   | 203,018               | 84,582                        | 2,041,998                                         | 29,690,815  |
| 2027             | 1,130,066                            | 59,121                                        | 0                                             | 2,834,128                      | 21,622,995   | 188,235               | 75,900                        | 1,890,347                                         | 27,800,792  |
| 2028             | 1,145,449                            | 59,926                                        | 0                                             | 2,869,314                      | 21,846,956   | 190,764               | 74,647                        | 1,916,080                                         | 28,103,136  |
| 2029             | 1,105,525                            | 57,837                                        | 0                                             | 2,774,623                      | 21,212,110   | 184,224               | 73,797                        | 1,849,296                                         | 27,257,926  |
| 2030             | 1,136,857                            | 59,477                                        | 0                                             | 2,847,776                      | 21,689,401   | 189,347               | 76,868                        | 1,901,708                                         | 27,901,434  |
| 2031             | 1,062,259                            | 55,574                                        | 0                                             | 2,672,188                      | 20,536,796   | 177,177               | 69,690                        | 1,776,921                                         | 26,350,605  |
| 2032             | 1,126,396                            | 58,929                                        | 0                                             | 2,822,939                      | 21,535,762   | 187,678               | 75,795                        | 1,884,208                                         | 27,691,707  |
| 2033             | 1,201,628                            | 62,865                                        | 0                                             | 3,015,146                      | 23,010,700   | 200,127               | 80,476                        | 2,010,054                                         | 29,580,996  |
| 2034             | 1,128,117                            | 59,019                                        | 0                                             | 2,830,298                      | 21,635,709   | 188,013               | 75,359                        | 1,887,088                                         | 27,803,603  |
| 2035             | 1,191,520                            | 62,336                                        | 0                                             | 2,995,653                      | 22,841,732   | 198,202               | 79,697                        | 1,993,146                                         | 29,362,286  |
| TOTAL            | 39,179,873                           | 2,021,965                                     | 0                                             | 92,909,441                     | 748,260,537  | 6,008,777             | 2,589,149                     | 67,329,025                                        | 958,298,768 |

**TABLE B-18. Variable OMP&R Component of  
Transportation Charge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                    |                                          |                                                    |                           |                                                |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|------------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Little Rock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [20]                                                | [21]                               | [22]                                     | [23]                                               | [24]                      | [25]                                           | [26]                      | [27]                          | [28]                                                       | [29]                                                    |
| 1961             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1962             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1963             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1964             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1965             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1966             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1967             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1968             | 0                                                   | 30,401                             | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1969             | 0                                                   | 30,627                             | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1970             | 0                                                   | 39,430                             | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1971             | 0                                                   | 34,871                             | 0                                        | 0                                                  | 0                         | 0                                              | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 780                                                 | 47,571                             | 0                                        | 12,785                                             | 0                         | 4,496                                          | 1,515                     | 0                             | 32,107                                                     | 0                                                       |
| 1973             | 286                                                 | 28,968                             | 102,812                                  | 6,896                                              | 159,536                   | 3,855                                          | 0                         | 0                             | 301,444                                                    | 0                                                       |
| 1974             | 15,558                                              | 28,982                             | 100,955                                  | 9,890                                              | 157,742                   | 4,932                                          | 221                       | 0                             | 177,173                                                    | 5,961                                                   |
| 1975             | 99,186                                              | 28,568                             | 108,253                                  | 12,758                                             | 170,111                   | 6,391                                          | 0                         | 0                             | 136,066                                                    | 50,723                                                  |
| 1976             | 385,090                                             | 38,365                             | 135,276                                  | 17,835                                             | 213,594                   | 8,164                                          | 0                         | 0                             | 139,354                                                    | 65,476                                                  |
| 1977             | 199,166                                             | 21,006                             | 0                                        | 23,598                                             | 0                         | 1,974                                          | 1,702                     | 0                             | 239,663                                                    | 74,838                                                  |
| 1978             | 581,729                                             | 45,550                             | 174,116                                  | 20,875                                             | 264,178                   | 2,731                                          | 0                         | 0                             | 37,043                                                     | 67,462                                                  |
| 1979             | 1,058,904                                           | 83,940                             | 228,437                                  | 28,603                                             | 340,510                   | 2,328                                          | 90,803                    | 0                             | 236                                                        | 3,668                                                   |
| 1980             | 1,390,117                                           | 51,143                             | 256,759                                  | 29,229                                             | 401,038                   | 3,667                                          | 94,362                    | 0                             | 0                                                          | 16,504                                                  |
| 1981             | 1,480,362                                           | 118,583                            | 274,149                                  | 33,632                                             | 430,304                   | 23,861                                         | 90,590                    | 0                             | 254,649                                                    | 57,523                                                  |
| 1982             | 923,973                                             | 132,575                            | 292,674                                  | 27,190                                             | 461,216                   | 0                                              | 230,608                   | 0                             | 126,461                                                    | 189,895                                                 |
| 1983             | 333,772                                             | (335,712)                          | 172,336                                  | 10,792                                             | 272,477                   | 385                                            | 0                         | 0                             | (71,602)                                                   | (8,768)                                                 |
| 1984             | 485,847                                             | (142,910)                          | 273,597                                  | 19,572                                             | 433,785                   | 15                                             | 0                         | 0                             | (66,353)                                                   | (91,433)                                                |
| 1985             | 821,069                                             | (335,343)                          | 413,406                                  | 34,603                                             | 657,011                   | 0                                              | 0                         | 32,464                        | (47,544)                                                   | (32,348)                                                |
| 1986             | 1,109,047                                           | 54,812                             | 728,808                                  | 60,274                                             | 1,160,650                 | 5,548                                          | 0                         | 105,375                       | 69,170                                                     | 101,843                                                 |
| 1987             | 1,019,605                                           | (40,745)                           | 668,383                                  | 63,601                                             | 1,083,530                 | 32,651                                         | 585                       | 157,843                       | 88,076                                                     | 49,930                                                  |
| 1988             | 1,019,793                                           | (74,006)                           | 688,891                                  | 66,914                                             | 1,134,141                 | 11,991                                         | 300                       | 50,654                        | 92,465                                                     | 38,688                                                  |
| 1989             | 1,736,901                                           | 178,359                            | 978,885                                  | 97,114                                             | 1,633,489                 | 38,269                                         | 8,951                     | 350,953                       | 340,460                                                    | 210,334                                                 |
| 1990             | 2,442,558                                           | 422,502                            | 1,402,619                                | 110,934                                            | 2,313,410                 | 90,472                                         | 0                         | 446,408                       | 599,573                                                    | 530,099                                                 |
| 1991             | 286,485                                             | (3,054)                            | 277,078                                  | 33,945                                             | 456,999                   | 17,978                                         | 128,405                   | 132,700                       | 35,339                                                     | 52,116                                                  |
| 1992             | 587,340                                             | (208,900)                          | 240,119                                  | 11,952                                             | 396,022                   | 4,871                                          | 241,338                   | 78,306                        | (22,718)                                                   | (53,500)                                                |
| 1993             | (190,611)                                           | (491,161)                          | (809,033)                                | (2,389)                                            | (1,334,429)               | (3,246)                                        | (61,112)                  | (29,466)                      | (157,452)                                                  | (519,798)                                               |
| 1994             | 1,841,902                                           | 66,338                             | 189,616                                  | 34,480                                             | 312,714                   | 41,201                                         | 731,185                   | 315,446                       | 122,829                                                    | 204,783                                                 |
| 1995             | 761,209                                             | (247,735)                          | (251,547)                                | 7,960                                              | (414,889)                 | 7,727                                          | 165,622                   | 114,342                       | (7,579)                                                    | (140,714)                                               |
| 1996             | 1,883,530                                           | 72,171                             | 508,274                                  | 18,313                                             | 838,330                   | 16,510                                         | 289,044                   | 385,745                       | 49,537                                                     | 133,848                                                 |
| 1997             | 2,121,818                                           | 22,440                             | 365,342                                  | 24,076                                             | 330,153                   | 15,099                                         | 414,596                   | 438,212                       | 61,553                                                     | 115,882                                                 |
| 1998             | (553,432)                                           | (722,825)                          | (3,952,729)                              | (2,892)                                            | (3,258,099)               | (4,225)                                        | (44,233)                  | (80,469)                      | (86,610)                                                   | (429,359)                                               |
| 1999             | 1,218,255                                           | (530,571)                          | (679,666)                                | 18,353                                             | (782,262)                 | 6,032                                          | 167,446                   | 245,763                       | (173,336)                                                  | (242,474)                                               |
| 2000             | 1,762,537                                           | (352,398)                          | (422,891)                                | 24,463                                             | (581,873)                 | 0                                              | 286,211                   | 191,064                       | (183,843)                                                  | (151,279)                                               |
| 2001             | 10,827,817                                          | 4,470,124                          | 1,505,453                                | 207,527                                            | 2,483,171                 | 0                                              | 854,664                   | 1,796,639                     | 4,382,027                                                  | 390,425                                                 |
| 2002             | 3,846,682                                           | 1,896,064                          | 705,816                                  | 158,247                                            | 1,164,355                 | 0                                              | 324,654                   | 1,221,084                     | 3,011,471                                                  | 1,046,866                                               |
| 2003             | 4,984,131                                           | 2,894,664                          | 872,808                                  | 142,251                                            | 1,439,410                 | 0                                              | 1,398,478                 | 958,733                       | 1,656,721                                                  | 1,325,498                                               |
| 2004             | 5,021,152                                           | 3,147,856                          | 958,231                                  | 184,956                                            | 1,312,960                 | 0                                              | 1,293,614                 | 1,021,566                     | 3,479,126                                                  | 777,056                                                 |
| 2005             | 6,424,244                                           | 3,349,052                          | 2,876,377                                | 24,670                                             | 4,109,863                 | 0                                              | 1,715,312                 | 1,257,555                     | 1,576,917                                                  | 1,170,778                                               |
| 2006             | 8,477,497                                           | 3,896,596                          | 6,314,971                                | 368,074                                            | 2,607,337                 | 91,081                                         | 5,215,910                 | 2,081,661                     | 7,822,220                                                  | 1,581,089                                               |
| 2007             | 7,697,860                                           | 6,415,288                          | 14,793,464                               | 548,075                                            | 4,377,225                 | 330,919                                        | 3,106,484                 | 3,064,602                     | 10,267,739                                                 | 1,697,147                                               |
| 2008             | 21,431,162                                          | 10,666,083                         | 18,646,414                               | 1,174,930                                          | 7,698,767                 | 391,816                                        | 13,911,938                | 3,628,555                     | 15,797,870                                                 | 4,434,490                                               |
| 2009             | 20,430,121                                          | 8,909,572                          | 15,637,016                               | 986,575                                            | 6,456,241                 | 334,428                                        | 13,483,462                | 3,097,090                     | 13,248,207                                                 | 3,718,795                                               |
| 2010             | 21,863,678                                          | 9,711,788                          | 17,092,703                               | 1,056,351                                          | 7,057,268                 | 357,865                                        | 14,402,884                | 3,314,137                     | 14,481,514                                                 | 4,064,986                                               |
| 2011             | 17,404,070                                          | 9,175,897                          | 13,824,012                               | 815,723                                            | 5,707,685                 | 283,093                                        | 11,029,790                | 2,621,688                     | 11,712,169                                                 | 3,287,626                                               |
| 2012             | 18,584,065                                          | 10,434,833                         | 14,981,799                               | 875,364                                            | 6,185,714                 | 302,287                                        | 11,840,307                | 2,799,438                     | 12,693,085                                                 | 3,562,971                                               |
| 2013             | 20,701,612                                          | 11,907,183                         | 17,150,259                               | 976,147                                            | 7,081,032                 | 336,731                                        | 13,138,589                | 3,118,418                     | 14,530,278                                                 | 4,078,674                                               |
| 2014             | 22,265,033                                          | 12,962,876                         | 18,702,825                               | 1,052,993                                          | 7,722,058                 | 362,161                                        | 14,141,226                | 3,353,926                     | 15,845,663                                                 | 4,447,905                                               |
| 2015             | 22,774,703                                          | 13,338,496                         | 19,167,322                               | 1,077,166                                          | 7,913,841                 | 370,451                                        | 14,461,635                | 3,430,701                     | 16,239,201                                                 | 4,558,372                                               |
| 2016             | 24,076,745                                          | 14,178,249                         | 20,419,637                               | 1,140,646                                          | 8,430,899                 | 391,630                                        | 15,309,794                | 3,626,836                     | 17,300,204                                                 | 4,856,198                                               |
| 2017             | 22,874,124                                          | 13,381,323                         | 19,225,232                               | 1,081,836                                          | 7,937,751                 | 372,069                                        | 14,525,531                | 3,445,678                     | 16,288,265                                                 | 4,572,144                                               |
| 2018             | 24,338,518                                          | 14,407,525                         | 20,688,720                               | 1,156,087                                          | 8,541,998                 | 395,888                                        | 15,542,831                | 3,666,269                     | 17,528,181                                                 | 4,920,191                                               |
| 2019             | 25,394,949                                          | 14,970,795                         | 21,617,107                               | 1,198,930                                          | 8,925,312                 | 413,072                                        | 16,068,268                | 3,825,406                     | 18,314,741                                                 | 5,140,980                                               |
| 2020             | 23,845,648                                          | 13,928,150                         | 20,051,773                               | 1,128,410                                          | 8,279,014                 | 387,871                                        | 15,161,373                | 3,592,025                     | 16,988,537                                                 | 4,768,712                                               |
| 2021             | 23,812,112                                          | 13,901,713                         | 20,055,978                               | 1,126,963                                          | 8,280,751                 | 387,326                                        | 15,145,637                | 3,586,973                     | 16,992,100                                                 | 4,769,712                                               |
| 2022             | 23,042,192                                          | 13,309,555                         | 19,297,667                               | 1,088,721                                          | 7,967,658                 | 374,802                                        | 14,647,892                | 3,470,995                     | 16,349,633                                                 | 4,589,371                                               |
| 2023             | 23,455,890                                          | 13,600,765                         | 19,654,556                               | 1,108,811                                          | 8,115,011                 | 381,531                                        | 14,917,747                | 3,533,313                     | 16,652,002                                                 | 4,674,246                                               |
| 2024             | 24,321,149                                          | 14,192,922                         | 20,494,084                               | 1,147,763                                          | 8,461,637                 | 395,606                                        | 15,411,824                | 3,663,653                     | 17,363,279                                                 | 4,873,903                                               |
| 2025             | 23,930,769                                          | 13,951,592                         | 20,215,583                               | 1,132,511                                          | 8,346,649                 | 389,256                                        | 15,218,509                | 3,604,847                     | 17,127,323                                                 | 4,807,670                                               |
| 2026             | 24,436,041                                          | 14,324,750                         | 20,600,952                               | 1,155,039                                          | 8,505,760                 | 397,475                                        | 15,514,299                | 3,680,960                     | 17,453,820                                                 | 4,899,318                                               |
| 2027             | 24,093,428                                          | 14,021,675                         | 20,308,920                               | 1,138,718                                          | 8,385,186                 | 391,902                                        | 15,299,021                | 3,629,349                     | 17,206,402                                                 | 4,829,867                                               |
| 2028             | 24,021,347                                          | 14,031,502                         | 20,228,715                               | 1,135,938                                          | 8,352,071                 | 390,729                                        | 15,260,247                | 3,618,491                     | 17,138,449                                                 | 4,810,793                                               |
| 2029             | 23,805,507                                          | 13,831,160                         | 20,022,167                               | 1,124,891                                          | 8,266,791                 | 387,218                                        | 15,119,025                | 3,585,978                     | 16,963,455                                                 | 4,761,672                                               |
| 2030             | 23,835,865                                          | 13,903,834                         | 20,054,515                               | 1,126,817                                          | 8,280,146                 | 387,712                                        | 15,139,792                | 3,590,551                     | 16,990,860                                                 | 4,769,364                                               |
| 2031             | 23,581,583                                          | 13,725,190                         | 19,834,534                               | 1,114,856                                          | 8,189,320                 | 383,576                                        | 15,018,702                | 3,552,247                     | 16,804,485                                                 | 4,717,048                                               |
| 2032             | 23,780,153                                          | 13,851,119                         | 19,974,371                               | 1,120,290                                          | 8,247,057                 | 386,806                                        | 15,067,227                | 3,582,159                     | 16,922,960                                                 | 4,750,305                                               |
| 2033             | 25,830,513                                          | 15,316,212                         | 22,029,444                               | 1,223,733                                          | 9,095,559                 | 420,157                                        | 16,448,301                | 3,891,018                     | 18,664,087                                                 | 5,239,042                                               |
| 2034             | 24,180,847                                          | 14,135,408                         | 20,406,343                               | 1,140,203                                          | 8,425,410                 | 393,324                                        | 15,336,623                | 3,642,518                     | 17,288,942                                                 | 4,853,036                                               |
| 2035             | 26,345,582                                          | 15,051,938                         | 22,218,564                               | 1,235,845                                          | 9,173,643                 | 428,535                                        | 16,599,377                | 3,968,606                     | 18,824,316                                                 | 5,284,018                                               |
| TOTAL            | 720,559,566                                         | 393,283,591                        | 573,093,251                              | 33,331,413                                         | 248,773,939               | 11,360,994                                     | 429,909,106               | 112,459,005                   | 493,992,410                                                | 137,330,168                                             |

**TABLE B-18. Variable OMP&R Component of  
Transportation Charge for Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)      |                                                                    |                                                   |                | FEATHER RIVER AREA      |                       |                            |       | South<br>Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|-------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|----------------|-------------------------|-----------------------|----------------------------|-------|----------------------------------------------|----------------|
|                  | San<br>Geronio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total          | City<br>of<br>Yuba City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total |                                              |                |
|                  | [30]                                      | [31]                                                               | [32]                                              | [33]           | [34]                    | [35]                  | [36]                       | [37]  | [38]                                         | [39]           |
| 1961             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 0              |
| 1962             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 36,970         |
| 1963             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 57,711         |
| 1964             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 74,134         |
| 1965             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 142,609        |
| 1966             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 192,606        |
| 1967             | 0                                         | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0     | 0                                            | 236,998        |
| 1968             | 0                                         | 0                                                                  | 0                                                 | 30,401         | 0                       | 0                     | 0                          | 0     | 0                                            | 1,117,912      |
| 1969             | 0                                         | 0                                                                  | 0                                                 | 30,627         | 0                       | 0                     | 0                          | 0     | 0                                            | 773,646        |
| 1970             | 0                                         | 0                                                                  | 0                                                 | 39,430         | 0                       | 0                     | 0                          | 0     | 0                                            | 1,103,799      |
| 1971             | 0                                         | 0                                                                  | 0                                                 | 34,871         | 0                       | 0                     | 0                          | 0     | 0                                            | 1,513,434      |
| 1972             | 0                                         | 848,011                                                            | 0                                                 | 947,266        | 0                       | 0                     | 0                          | 0     | 0                                            | 3,297,202      |
| 1973             | 0                                         | 1,083,328                                                          | 0                                                 | 1,687,126      | 0                       | 0                     | 0                          | 0     | 0                                            | 3,174,991      |
| 1974             | 0                                         | 1,872,297                                                          | 0                                                 | 2,373,712      | 0                       | 0                     | 0                          | 0     | 0                                            | 3,926,489      |
| 1975             | 0                                         | 3,887,152                                                          | 0                                                 | 4,499,209      | 0                       | 0                     | 0                          | 0     | 0                                            | 6,057,701      |
| 1976             | 0                                         | 5,485,263                                                          | 0                                                 | 6,488,418      | 0                       | 0                     | 0                          | 0     | 0                                            | 8,477,311      |
| 1977             | 0                                         | (796,686)                                                          | 0                                                 | (234,739)      | 0                       | 0                     | 0                          | 0     | 0                                            | 1,152,444      |
| 1978             | 0                                         | 3,696,428                                                          | 0                                                 | 4,890,112      | 0                       | 0                     | 0                          | 0     | 0                                            | 7,632,606      |
| 1979             | 0                                         | 4,021,960                                                          | 0                                                 | 5,859,389      | 0                       | 0                     | 0                          | 0     | 0                                            | 9,873,798      |
| 1980             | 0                                         | 5,362,245                                                          | 0                                                 | 7,605,064      | 0                       | 0                     | 0                          | 0     | 0                                            | 10,425,875     |
| 1981             | 0                                         | 10,862,932                                                         | 0                                                 | 13,626,585     | 0                       | 0                     | 0                          | 0     | 0                                            | 17,576,025     |
| 1982             | 0                                         | 7,685,168                                                          | 0                                                 | 10,069,760     | 0                       | 0                     | 0                          | 0     | 0                                            | 13,566,611     |
| 1983             | 0                                         | (8,994,497)                                                        | 0                                                 | (8,620,817)    | 0                       | 0                     | 0                          | 0     | 0                                            | (7,441,457)    |
| 1984             | 0                                         | (7,633,741)                                                        | 0                                                 | (6,721,621)    | 0                       | 0                     | 0                          | 0     | 0                                            | (4,008,601)    |
| 1985             | 0                                         | (15,213,299)                                                       | 0                                                 | (13,669,981)   | 0                       | 0                     | 0                          | 0     | 0                                            | (9,784,304)    |
| 1986             | 0                                         | 1,135,478                                                          | 0                                                 | 4,531,005      | 0                       | 0                     | 0                          | 0     | 0                                            | 11,629,559     |
| 1987             | 0                                         | (3,007,097)                                                        | 0                                                 | 116,362        | 0                       | 0                     | 0                          | 0     | 0                                            | 6,746,470      |
| 1988             | 0                                         | (3,407,929)                                                        | 0                                                 | (378,098)      | 0                       | 0                     | 0                          | 0     | 0                                            | 6,351,151      |
| 1989             | 0                                         | 9,488,536                                                          | 0                                                 | 15,062,251     | 0                       | 0                     | 0                          | 0     | 0                                            | 24,661,302     |
| 1990             | 0                                         | 30,759,725                                                         | 204,582                                           | 39,322,882     | 0                       | 0                     | 0                          | 0     | 0                                            | 48,184,400     |
| 1991             | 0                                         | 184,870                                                            | 22,623                                            | 1,625,484      | 0                       | 0                     | 0                          | 0     | 0                                            | 2,463,685      |
| 1992             | 0                                         | (9,471,028)                                                        | 0                                                 | (8,196,198)    | 0                       | 0                     | 0                          | 0     | 0                                            | (5,499,060)    |
| 1993             | 0                                         | (21,473,875)                                                       | 0                                                 | (25,072,572)   | 0                       | 0                     | 0                          | 0     | 0                                            | (24,652,636)   |
| 1994             | 0                                         | 4,059,683                                                          | 0                                                 | 7,920,177      | 0                       | 0                     | 0                          | 0     | 0                                            | 13,514,307     |
| 1995             | 0                                         | (4,895,977)                                                        | 0                                                 | (4,901,581)    | 0                       | 0                     | 0                          | 0     | 0                                            | (99,701)       |
| 1996             | 0                                         | 1,859,275                                                          | 0                                                 | 6,054,577      | 0                       | 0                     | 0                          | 0     | 0                                            | 15,893,938     |
| 1997             | 0                                         | 2,428,729                                                          | (921)                                             | 6,336,979      | 0                       | 0                     | 0                          | 0     | 0                                            | 14,932,641     |
| 1998             | 0                                         | (14,440,371)                                                       | (67,583)                                          | (23,642,827)   | 0                       | 0                     | 0                          | 0     | 0                                            | (23,707,573)   |
| 1999             | 0                                         | (10,520,287)                                                       | (35,124)                                          | (11,307,871)   | 0                       | 0                     | 0                          | 0     | 0                                            | (5,221,364)    |
| 2000             | 0                                         | (14,717,733)                                                       | 7,302                                             | (14,138,440)   | 0                       | 0                     | 0                          | 0     | 0                                            | (6,815,549)    |
| 2001             | 0                                         | 158,911,350                                                        | 267,050                                           | 186,096,247    | 0                       | 0                     | 0                          | 0     | 0                                            | 209,266,920    |
| 2002             | 0                                         | 57,208,907                                                         | 271,168                                           | 70,855,314     | 0                       | 0                     | 0                          | 0     | 0                                            | 85,446,624     |
| 2003             | 7,010                                     | 89,819,141                                                         | 348,102                                           | 105,846,947    | 0                       | 0                     | 0                          | 0     | 0                                            | 123,971,890    |
| 2004             | 52,109                                    | 102,056,117                                                        | 400,088                                           | 119,704,831    | 0                       | 0                     | 0                          | 0     | 0                                            | 137,432,714    |
| 2005             | 57,936                                    | 108,335,701                                                        | 138,191                                           | 131,036,596    | 0                       | 0                     | 0                          | 0     | 0                                            | 160,644,823    |
| 2006             | 280,549                                   | 170,559,710                                                        | 427,378                                           | 209,724,073    | 0                       | 0                     | 0                          | 0     | 0                                            | 240,309,510    |
| 2007             | 1,060,717                                 | 228,593,024                                                        | 2,569,909                                         | 284,522,453    | 0                       | 0                     | 0                          | 0     | 0                                            | 321,334,162    |
| 2008             | 2,663,773                                 | 202,844,808                                                        | 3,009,350                                         | 306,299,956    | 0                       | 0                     | 0                          | 0     | 0                                            | 349,612,910    |
| 2009             | 2,233,859                                 | 169,323,956                                                        | 2,515,630                                         | 260,374,952    | 0                       | 0                     | 0                          | 0     | 0                                            | 300,013,500    |
| 2010             | 2,441,815                                 | 184,273,086                                                        | 2,725,443                                         | 282,843,518    | 0                       | 0                     | 0                          | 0     | 0                                            | 327,478,440    |
| 2011             | 1,974,859                                 | 204,716,385                                                        | 2,091,140                                         | 284,644,137    | 0                       | 0                     | 0                          | 0     | 0                                            | 323,697,953    |
| 2012             | 2,140,257                                 | 221,991,008                                                        | 2,264,057                                         | 308,655,185    | 0                       | 0                     | 0                          | 0     | 0                                            | 348,514,794    |
| 2013             | 2,450,037                                 | 253,712,062                                                        | 2,574,007                                         | 351,755,029    | 0                       | 0                     | 0                          | 0     | 0                                            | 398,092,407    |
| 2014             | 2,671,832                                 | 276,440,025                                                        | 2,797,780                                         | 382,766,303    | 0                       | 0                     | 0                          | 0     | 0                                            | 429,383,249    |
| 2015             | 2,738,189                                 | 283,884,801                                                        | 2,876,218                                         | 392,831,096    | 0                       | 0                     | 0                          | 0     | 0                                            | 441,875,191    |
| 2016             | 2,917,091                                 | 302,090,302                                                        | 3,054,623                                         | 417,792,854    | 0                       | 0                     | 0                          | 0     | 0                                            | 470,300,670    |
| 2017             | 2,746,462                                 | 284,769,772                                                        | 2,885,774                                         | 394,105,961    | 0                       | 0                     | 0                          | 0     | 0                                            | 443,417,250    |
| 2018             | 2,955,531                                 | 306,529,087                                                        | 3,102,166                                         | 423,772,992    | 0                       | 0                     | 0                          | 0     | 0                                            | 474,352,053    |
| 2019             | 3,088,158                                 | 319,385,947                                                        | 3,225,426                                         | 441,569,091    | 0                       | 0                     | 0                          | 0     | 0                                            | 495,864,182    |
| 2020             | 2,864,539                                 | 296,705,536                                                        | 3,004,354                                         | 410,705,942    | 0                       | 0                     | 0                          | 0     | 0                                            | 460,854,743    |
| 2021             | 2,865,140                                 | 296,450,985                                                        | 2,998,903                                         | 410,374,293    | 0                       | 0                     | 0                          | 0     | 0                                            | 460,115,158    |
| 2022             | 2,756,810                                 | 284,524,287                                                        | 2,875,675                                         | 394,295,258    | 0                       | 0                     | 0                          | 0     | 0                                            | 441,702,432    |
| 2023             | 2,807,794                                 | 290,272,512                                                        | 2,936,831                                         | 402,111,009    | 0                       | 0                     | 0                          | 0     | 0                                            | 451,152,671    |
| 2024             | 2,927,726                                 | 302,792,243                                                        | 3,061,936                                         | 419,107,725    | 0                       | 0                     | 0                          | 0     | 0                                            | 471,051,161    |
| 2025             | 2,887,941                                 | 298,154,618                                                        | 3,010,600                                         | 412,777,868    | 0                       | 0                     | 0                          | 0     | 0                                            | 461,249,079    |
| 2026             | 2,942,993                                 | 304,995,036                                                        | 3,088,155                                         | 421,994,598    | 0                       | 0                     | 0                          | 0     | 0                                            | 474,871,857    |
| 2027             | 2,901,274                                 | 299,592,376                                                        | 3,026,215                                         | 414,824,333    | 0                       | 0                     | 0                          | 0     | 0                                            | 465,076,692    |
| 2028             | 2,889,816                                 | 299,112,763                                                        | 3,026,615                                         | 414,017,476    | 0                       | 0                     | 0                          | 0     | 0                                            | 464,677,510    |
| 2029             | 2,860,310                                 | 295,442,815                                                        | 2,985,804                                         | 409,156,793    | 0                       | 0                     | 0                          | 0     | 0                                            | 458,643,818    |
| 2030             | 2,864,931                                 | 296,463,187                                                        | 2,999,661                                         | 410,407,235    | 0                       | 0                     | 0                          | 0     | 0                                            | 460,845,240    |
| 2031             | 2,833,505                                 | 292,929,280                                                        | 2,962,421                                         | 405,646,747    | 0                       | 0                     | 0                          | 0     | 0                                            | 453,907,515    |
| 2032             | 2,853,482                                 | 295,309,169                                                        | 2,989,236                                         | 408,834,334    | 0                       | 0                     | 0                          | 0     | 0                                            | 459,118,815    |
| 2033             | 3,147,063                                 | 326,123,959                                                        | 3,297,294                                         | 450,726,382    | 0                       | 0                     | 0                          | 0     | 0                                            | 504,121,168    |
| 2034             | 2,915,192                                 | 301,530,972                                                        | 3,049,087                                         | 417,297,905    | 0                       | 0                     | 0                          | 0     | 0                                            | 467,899,480    |
| 2035             | 3,174,081                                 | 324,653,312                                                        | 3,258,376                                         | 450,216,193    | 0                       | 0                     | 0                          | 0     | 0                                            | 502,242,925    |
| TOTAL            | 78,972,781                                | 8,710,646,800                                                      | 86,245,542                                        | 12,029,958,568 | 0                       | 0                     | 0                          | 0     | 0                                            | 13,686,097,586 |

**TABLE B-19. Total Transportation Charge for Each Contractor**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                        |             | SOUTH BAY AREA                         |                                        |                                            |               | CENTRAL COASTAL AREA                   |                                      |               |
|------------------|--------------------------|------------------------|-------------|----------------------------------------|----------------------------------------|--------------------------------------------|---------------|----------------------------------------|--------------------------------------|---------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total       | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total         | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total         |
|                  | [1]                      | [2]                    | [3]         | [4]                                    | [5]                                    | [6]                                        | [7]           | [8]                                    | [9]                                  | [10]          |
| 1961             | 0                        | 0                      | 0           | 0                                      | 0                                      | 0                                          | 0             | 0                                      | 0                                    | 0             |
| 1962             | 0                        | 0                      | 0           | 11,750                                 | 43,787                                 | 21,132                                     | 76,669        | 0                                      | 0                                    | 0             |
| 1963             | 0                        | 0                      | 0           | 199,673                                | 190,236                                | 447,594                                    | 837,503       | 0                                      | 0                                    | 0             |
| 1964             | 0                        | 0                      | 0           | 263,210                                | 277,398                                | 621,174                                    | 1,161,782     | 6,694                                  | 21,659                               | 28,353        |
| 1965             | 0                        | 0                      | 0           | 373,722                                | 404,239                                | 1,157,791                                  | 1,935,752     | 13,751                                 | 36,017                               | 49,768        |
| 1966             | 18,057                   | 0                      | 18,057      | 419,362                                | 421,628                                | 1,412,600                                  | 2,253,590     | 26,516                                 | 61,329                               | 87,845        |
| 1967             | 41,560                   | 0                      | 41,560      | 538,988                                | 498,337                                | 1,685,708                                  | 2,723,033     | 56,450                                 | 118,225                              | 174,675       |
| 1968             | 128,588                  | 0                      | 128,588     | 663,603                                | 603,365                                | 1,984,791                                  | 3,251,759     | 115,927                                | 229,740                              | 345,667       |
| 1969             | 254,662                  | 0                      | 254,662     | 787,031                                | 539,211                                | 2,082,793                                  | 3,409,035     | 185,117                                | 358,783                              | 543,900       |
| 1970             | 277,493                  | 0                      | 277,493     | 822,758                                | 532,434                                | 2,202,293                                  | 3,557,485     | 200,110                                | 387,595                              | 587,705       |
| 1971             | 227,419                  | 0                      | 227,419     | 787,810                                | 551,979                                | 2,169,422                                  | 3,509,211     | 202,372                                | 392,830                              | 595,202       |
| 1972             | 224,922                  | 0                      | 224,922     | 829,451                                | 678,385                                | 2,319,944                                  | 3,827,780     | 209,015                                | 406,506                              | 615,521       |
| 1973             | 221,035                  | 31,353                 | 252,388     | 794,675                                | 549,258                                | 2,338,141                                  | 3,682,074     | 206,516                                | 402,639                              | 609,155       |
| 1974             | 240,442                  | 32,924                 | 273,366     | 818,457                                | 564,459                                | 2,505,879                                  | 3,888,795     | 208,503                                | 407,005                              | 615,508       |
| 1975             | 237,400                  | 36,276                 | 273,676     | 868,312                                | 605,595                                | 2,409,443                                  | 3,883,350     | 225,853                                | 439,786                              | 665,639       |
| 1976             | 271,231                  | 40,819                 | 312,050     | 959,078                                | 734,676                                | 2,500,026                                  | 4,193,780     | 228,933                                | 447,212                              | 676,145       |
| 1977             | 293,565                  | 45,078                 | 338,643     | 923,250                                | 713,422                                | 2,475,917                                  | 4,112,589     | 238,656                                | 468,632                              | 707,288       |
| 1978             | 273,807                  | 49,159                 | 322,966     | 978,585                                | 692,451                                | 2,785,503                                  | 4,456,539     | 245,286                                | 484,166                              | 729,452       |
| 1979             | 289,415                  | 53,320                 | 342,735     | 1,043,753                              | 736,221                                | 2,813,091                                  | 4,593,065     | 243,064                                | 483,342                              | 726,406       |
| 1980             | 310,779                  | 67,724                 | 378,502     | 1,161,767                              | 866,233                                | 3,027,715                                  | 5,055,715     | 269,812                                | 536,977                              | 806,789       |
| 1981             | 347,710                  | 87,377                 | 435,087     | 1,127,434                              | 879,216                                | 2,917,088                                  | 4,923,738     | 288,950                                | 586,152                              | 875,102       |
| 1982             | 438,260                  | 106,881                | 545,141     | 1,165,322                              | 850,343                                | 3,261,612                                  | 5,277,277     | 290,002                                | 582,655                              | 872,657       |
| 1983             | 354,703                  | 151,207                | 505,911     | 1,176,878                              | 900,223                                | 3,794,952                                  | 5,872,053     | 319,167                                | 633,079                              | 952,246       |
| 1984             | 467,232                  | 224,170                | 691,403     | 1,469,016                              | 1,097,338                              | 5,737,303                                  | 8,303,657     | 351,573                                | 695,455                              | 1,047,028     |
| 1985             | 735,929                  | 364,186                | 1,100,115   | 1,919,455                              | 1,789,224                              | 6,551,042                                  | 10,259,721    | 394,545                                | 776,889                              | 1,171,434     |
| 1986             | 1,084,468                | 692,256                | 1,776,724   | 1,746,659                              | 1,528,587                              | 6,862,724                                  | 10,137,970    | 385,497                                | 762,577                              | 1,148,074     |
| 1987             | 1,773,371                | 1,558,749              | 3,332,120   | 2,236,518                              | 2,011,731                              | 6,674,848                                  | 10,923,097    | 385,240                                | 812,198                              | 1,197,438     |
| 1988             | 2,231,006                | 2,333,097              | 4,564,103   | 2,238,150                              | 2,210,377                              | 6,368,341                                  | 10,816,868    | 420,101                                | 978,488                              | 1,398,589     |
| 1989             | 2,396,678                | 3,325,671              | 5,722,349   | 2,154,455                              | 1,871,882                              | 5,916,199                                  | 9,942,536     | 414,171                                | 1,162,567                            | 1,576,738     |
| 1990             | 2,745,521                | 3,432,532              | 6,178,053   | 2,573,752                              | 2,261,764                              | 6,667,922                                  | 11,503,438    | 487,553                                | 1,234,234                            | 1,721,787     |
| 1991             | 2,748,016                | 3,681,509              | 6,429,525   | 1,753,376                              | 1,621,035                              | 4,527,400                                  | 7,901,811     | 491,359                                | 1,476,188                            | 1,967,547     |
| 1992             | 2,553,906                | 3,528,155              | 6,082,061   | 2,074,547                              | 2,003,168                              | 5,385,315                                  | 9,463,030     | 550,978                                | 1,490,922                            | 2,041,900     |
| 1993             | 2,592,266                | 3,503,436              | 6,095,702   | 2,879,786                              | 2,011,060                              | 6,511,316                                  | 11,402,162    | 610,046                                | 1,675,150                            | 2,285,196     |
| 1994             | 2,717,706                | 3,536,656              | 6,254,362   | 2,906,520                              | 2,642,290                              | 7,313,944                                  | 12,862,754    | 767,812                                | 2,472,978                            | 3,240,790     |
| 1995             | 2,648,648                | 3,509,127              | 6,157,775   | 3,034,893                              | 2,288,863                              | 5,893,110                                  | 11,216,866    | 995,188                                | 4,975,940                            | 5,971,128     |
| 1996             | 2,698,584                | 3,890,907              | 6,589,491   | 2,584,033                              | 2,137,277                              | 6,674,929                                  | 11,396,239    | 1,837,045                              | 13,762,994                           | 15,600,039    |
| 1997             | 2,641,264                | 3,630,366              | 6,271,631   | 2,657,288                              | 2,007,165                              | 6,550,905                                  | 11,215,358    | 2,294,408                              | 21,854,823                           | 24,149,231    |
| 1998             | 2,538,666                | 3,478,852              | 6,017,518   | 2,266,317                              | 2,066,608                              | 6,302,898                                  | 10,635,823    | 2,977,681                              | 26,603,247                           | 29,580,928    |
| 1999             | 2,680,098                | 3,827,995              | 6,508,093   | 2,854,240                              | 2,432,691                              | 8,329,945                                  | 13,616,876    | 3,026,766                              | 27,400,521                           | 30,427,287    |
| 2000             | 2,832,254                | 4,307,492              | 7,139,746   | 3,914,367                              | 2,305,297                              | 7,035,630                                  | 13,255,294    | 2,961,476                              | 28,194,146                           | 31,155,622    |
| 2001             | 3,345,975                | 4,910,381              | 8,256,356   | 5,221,304                              | 2,795,887                              | 9,020,109                                  | 17,037,300    | 3,512,117                              | 30,214,029                           | 33,726,146    |
| 2002             | 3,551,401                | 5,041,301              | 8,592,703   | 5,009,756                              | 2,765,455                              | 9,893,110                                  | 17,668,321    | 3,222,824                              | 29,892,377                           | 33,115,201    |
| 2003             | 3,660,175                | 5,383,193              | 9,043,368   | 4,826,354                              | 2,492,705                              | 8,679,255                                  | 15,998,314    | 3,302,249                              | 30,145,999                           | 33,448,248    |
| 2004             | 4,140,126                | 5,595,671              | 9,735,797   | 5,659,101                              | 2,792,486                              | 8,149,125                                  | 16,600,712    | 3,319,474                              | 30,643,388                           | 33,962,862    |
| 2005             | 3,515,496                | 5,127,627              | 8,643,123   | 5,855,730                              | 3,061,038                              | 9,189,090                                  | 18,105,858    | 3,463,147                              | 30,999,961                           | 34,463,108    |
| 2006             | 4,332,110                | 6,073,120              | 10,405,230  | 6,693,651                              | 3,759,204                              | 9,882,121                                  | 20,334,976    | 5,467,613                              | 31,639,426                           | 37,107,039    |
| 2007             | 4,786,418                | 6,451,513              | 11,237,931  | 7,952,209                              | 4,182,838                              | 10,781,682                                 | 22,916,729    | 3,777,497                              | 35,469,254                           | 39,246,751    |
| 2008             | 5,378,515                | 6,826,562              | 12,205,077  | 9,410,367                              | 4,665,940                              | 12,133,589                                 | 26,209,896    | 6,282,210                              | 34,521,273                           | 40,803,483    |
| 2009             | 4,755,139                | 5,021,690              | 9,776,829   | 9,424,619                              | 4,762,431                              | 12,057,871                                 | 26,244,921    | 6,562,007                              | 33,793,995                           | 40,356,002    |
| 2010             | 4,797,348                | 5,054,276              | 9,851,624   | 9,762,202                              | 4,934,772                              | 12,436,909                                 | 27,133,883    | 6,748,133                              | 34,158,126                           | 40,906,259    |
| 2011             | 4,753,895                | 5,072,872              | 9,826,767   | 8,931,602                              | 4,469,798                              | 12,881,963                                 | 26,283,363    | 6,442,599                              | 33,632,833                           | 40,075,432    |
| 2012             | 4,789,448                | 5,098,510              | 9,887,958   | 8,992,584                              | 4,498,625                              | 12,963,915                                 | 26,455,124    | 6,541,448                              | 33,839,960                           | 40,381,408    |
| 2013             | 4,777,169                | 5,084,588              | 9,861,757   | 8,865,851                              | 4,420,401                              | 12,650,095                                 | 25,936,347    | 6,543,881                              | 33,845,422                           | 40,389,303    |
| 2014             | 4,753,594                | 5,055,270              | 9,808,864   | 8,458,828                              | 4,185,208                              | 12,054,153                                 | 24,698,189    | 6,382,450                              | 33,542,902                           | 39,925,352    |
| 2015             | 4,779,976                | 5,057,487              | 9,837,463   | 8,474,918                              | 4,143,918                              | 11,798,306                                 | 24,417,142    | 6,408,332                              | 33,589,534                           | 39,997,866    |
| 2016             | 4,789,424                | 5,062,430              | 9,851,854   | 8,604,763                              | 4,200,902                              | 11,833,908                                 | 24,639,573    | 6,468,676                              | 33,695,388                           | 40,164,064    |
| 2017             | 4,775,083                | 5,051,132              | 9,826,215   | 8,349,358                              | 4,077,620                              | 11,492,184                                 | 23,919,162    | 6,345,719                              | 33,470,000                           | 39,815,719    |
| 2018             | 4,727,523                | 5,068,739              | 9,796,262   | 8,272,546                              | 4,057,183                              | 11,425,348                                 | 23,755,077    | 6,360,070                              | 33,494,324                           | 39,854,394    |
| 2019             | 4,727,835                | 5,088,815              | 9,816,650   | 8,390,989                              | 4,135,602                              | 11,607,301                                 | 24,133,892    | 6,469,341                              | 33,689,306                           | 40,158,647    |
| 2020             | 4,696,050                | 5,042,418              | 9,738,468   | 8,067,584                              | 3,977,872                              | 11,198,068                                 | 23,243,524    | 6,247,690                              | 33,285,998                           | 39,533,688    |
| 2021             | 4,700,721                | 5,045,121              | 9,745,842   | 8,052,514                              | 3,970,398                              | 11,182,492                                 | 23,205,404    | 6,246,931                              | 33,284,100                           | 39,531,031    |
| 2022             | 4,666,912                | 5,017,317              | 9,684,229   | 7,881,951                              | 3,885,270                              | 10,959,101                                 | 22,726,322    | 6,120,063                              | 33,051,631                           | 39,171,694    |
| 2023             | 4,667,175                | 4,984,289              | 9,651,464   | 7,958,567                              | 3,925,437                              | 11,053,536                                 | 22,937,540    | 6,150,366                              | 33,104,448                           | 39,254,814    |
| 2024             | 4,698,301                | 5,013,035              | 9,711,336   | 8,153,019                              | 4,022,055                              | 11,302,527                                 | 23,477,601    | 6,288,615                              | 33,355,895                           | 39,644,510    |
| 2025             | 4,679,265                | 5,002,217              | 9,681,482   | 7,933,931                              | 3,909,208                              | 11,027,712                                 | 22,870,851    | 6,198,918                              | 33,193,347                           | 39,392,265    |
| 2026             | 4,679,675                | 5,001,317              | 9,680,992   | 8,180,420                              | 4,036,704                              | 11,334,286                                 | 23,551,410    | 6,291,628                              | 33,357,657                           | 39,649,285    |
| 2027             | 4,663,808                | 4,987,978              | 9,651,786   | 8,020,986                              | 3,955,358                              | 11,131,852                                 | 23,108,196    | 6,207,044                              | 33,204,756                           | 39,411,800    |
| 2028             | 4,664,198                | 4,985,356              | 9,649,554   | 8,012,395                              | 3,951,768                              | 11,115,942                                 | 23,080,105    | 6,226,505                              | 33,232,102                           | 39,458,607    |
| 2029             | 4,648,244                | 4,971,322              | 9,619,566   | 7,958,320                              | 3,923,133                              | 11,048,794                                 | 22,930,247    | 6,169,724                              | 33,127,277                           | 39,297,001    |
| 2030             | 4,643,518                | 4,960,798              | 9,604,316   | 8,014,440                              | 3,951,380                              | 11,120,025                                 | 23,085,845    | 6,203,234                              | 33,182,556                           | 39,385,790    |
| 2031             | 4,616,859                | 4,932,355              | 9,549,214   | 7,870,180                              | 3,877,345                              | 10,936,043                                 | 22,683,568    | 6,125,740                              | 33,032,365                           | 39,158,105    |
| 2032             | 4,620,106                | 4,923,073              | 9,543,179   | 8,004,313                              | 3,944,888                              | 11,106,998                                 | 23,056,199    | 6,211,781                              | 33,188,403                           | 39,400,184    |
| 2033             | 4,641,198                | 4,922,725              | 9,563,923   | 8,222,295                              | 4,052,781                              | 11,390,886                                 | 23,665,962    | 6,401,248                              | 33,539,181                           | 39,940,429    |
| 2034             | 4,528,784                | 4,812,307              | 9,341,091   | 8,024,897                              | 3,953,990                              | 11,134,456                                 | 23,113,343    | 6,248,488                              | 33,258,990                           | 39,507,478    |
| 2035             | 4,357,845                | 4,645,023              | 9,002,868   | 8,010,016                              | 3,951,013                              | 11,104,912                                 | 23,065,946    | 6,208,992                              | 33,182,064                           | 39,391,056    |
| TOTAL            | 201,845,970              | 229,899,103            | 431,745,073 | 333,500,802                            | 184,810,066                            | 545,316,049                                | 1,063,626,917 | 226,298,887                            | 1,299,671,913                        | 1,525,970,800 |

**TABLE B-19. Total Transportation Charge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |                   |                       |                               |                                                   |               |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|-------------------|-----------------------|-------------------------------|---------------------------------------------------|---------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare<br>Lake Basin<br>Water Storage<br>District | Total         |
|                  | [11]                                 | [12]                                          | [13]                                          | Municipal<br>and<br>Industrial | Agri-<br>cultural |                       |                               |                                                   |               |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]              | [16]                  | [17]                          | [18]                                              | [19]          |
| 1961             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1962             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1963             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1964             | 0                                    | 0                                             | 2,724                                         | 0                              | 0                 | 0                     | 0                             | 0                                                 | 2,724         |
| 1965             | 0                                    | 0                                             | 6,027                                         | 73,543                         | 0                 | 0                     | 0                             | 0                                                 | 79,570        |
| 1966             | 0                                    | 0                                             | 12,035                                        | 137,285                        | 0                 | 0                     | 0                             | 0                                                 | 149,320       |
| 1967             | 0                                    | 0                                             | 26,249                                        | 267,525                        | 0                 | 0                     | 0                             | 0                                                 | 293,774       |
| 1968             | 184,168                              | 8,886                                         | 54,573                                        | 445,315                        | 1,542,385         | 13,767                | 11,548                        | 208,536                                           | 2,469,178     |
| 1969             | 179,773                              | 7,577                                         | 87,557                                        | 524,952                        | 2,387,979         | 12,621                | 10,548                        | 355,668                                           | 3,566,676     |
| 1970             | 201,748                              | 14,344                                        | 94,656                                        | 573,846                        | 2,909,892         | 12,786                | 13,083                        | 292,697                                           | 4,113,053     |
| 1971             | 197,960                              | 15,302                                        | 95,676                                        | 605,729                        | 3,816,811         | 17,759                | 14,381                        | 447,754                                           | 5,211,373     |
| 1972             | 220,461                              | 16,170                                        | 98,769                                        | 631,452                        | 4,984,213         | 15,216                | 20,629                        | 1,078,359                                         | 7,065,270     |
| 1973             | 202,990                              | 12,241                                        | 97,531                                        | 639,086                        | 4,915,777         | 15,480                | 11,682                        | 407,990                                           | 6,302,777     |
| 1974             | 282,623                              | 12,210                                        | 98,440                                        | 698,081                        | 5,217,241         | 15,586                | 12,759                        | 596,073                                           | 6,933,013     |
| 1975             | 349,567                              | 13,155                                        | 106,683                                       | 715,440                        | 6,337,132         | 16,616                | 14,442                        | 726,513                                           | 8,279,548     |
| 1976             | 304,684                              | 13,701                                        | 108,064                                       | 774,124                        | 6,690,214         | 16,990                | 16,109                        | 563,293                                           | 8,487,179     |
| 1977             | 266,670                              | 10,811                                        | 112,534                                       | 797,692                        | 6,864,009         | 18,453                | 13,895                        | 510,238                                           | 8,594,301     |
| 1978             | 355,506                              | 4,441                                         | 115,500                                       | 890,776                        | 8,316,063         | 18,918                | 17,933                        | 503,815                                           | 10,222,952    |
| 1979             | 385,416                              | 13,548                                        | 114,232                                       | 896,025                        | 9,440,248         | 20,198                | 24,864                        | 952,516                                           | 11,847,048    |
| 1980             | 406,516                              | 11,898                                        | 125,929                                       | 888,723                        | 9,996,836         | 20,745                | 24,228                        | 736,879                                           | 12,211,755    |
| 1981             | 470,007                              | 29,739                                        | 134,147                                       | 1,079,139                      | 11,440,913        | 24,935                | 22,906                        | 908,148                                           | 14,109,935    |
| 1982             | 464,516                              | 12,889                                        | 135,036                                       | 1,004,493                      | 12,272,433        | 22,951                | 22,370                        | 745,479                                           | 14,680,167    |
| 1983             | 637,690                              | 14,483                                        | 149,180                                       | 1,027,082                      | 15,479,376        | 39,967                | 29,127                        | 428,002                                           | 17,804,908    |
| 1984             | 910,228                              | 14,897                                        | 164,483                                       | 2,063,001                      | 23,605,500        | 54,424                | 59,610                        | 783,561                                           | 27,655,704    |
| 1985             | 1,098,641                            | 87,458                                        | 184,883                                       | 2,350,412                      | 27,911,512        | 69,479                | 70,139                        | 2,170,356                                         | 33,942,880    |
| 1986             | 1,262,744                            | 33,914                                        | 180,423                                       | 2,364,977                      | 30,490,589        | 80,765                | 75,998                        | 2,181,725                                         | 36,671,135    |
| 1987             | 1,121,185                            | 50,709                                        | 179,850                                       | 2,804,592                      | 29,274,226        | 78,014                | 74,244                        | 2,240,660                                         | 35,823,480    |
| 1988             | 1,106,658                            | 61,504                                        | 193,712                                       | 2,750,239                      | 29,186,168        | 60,118                | 60,118                        | 2,198,227                                         | 35,630,790    |
| 1989             | 1,142,042                            | 49,186                                        | 187,891                                       | 2,435,448                      | 29,247,553        | 67,045                | 68,581                        | 2,441,530                                         | 35,639,276    |
| 1990             | 865,340                              | 34,348                                        | 221,368                                       | 2,541,124                      | 27,362,503        | 51,053                | 49,009                        | 1,868,258                                         | 32,993,003    |
| 1991             | 582,223                              | 23,253                                        | 220,258                                       | 2,055,047                      | 17,561,895        | 27,925                | 26,778                        | 1,228,823                                         | 21,726,203    |
| 1992             | 951,603                              | 39,089                                        | 241,431                                       | 2,369,575                      | 25,860,016        | 55,791                | 50,832                        | 1,905,963                                         | 31,474,300    |
| 1993             | 1,163,893                            | 53,616                                        | 264,933                                       | 2,799,265                      | 31,374,185        | 72,885                | 69,515                        | 2,639,551                                         | 38,437,843    |
| 1994             | 1,018,998                            | 43,743                                        | 306,333                                       | 2,808,612                      | 29,250,068        | 60,456                | 57,282                        | 2,115,514                                         | 35,661,006    |
| 1995             | 1,515,671                            | 46,600                                        | 304,270                                       | 3,499,388                      | 36,373,551        | 88,870                | 80,105                        | 2,769,591                                         | 44,678,047    |
| 1996             | 1,374,852                            | 48,232                                        | 389,175                                       | 3,559,914                      | 36,686,273        | 86,087                | 73,753                        | 4,315,482                                         | 46,533,768    |
| 1997             | 1,416,695                            | 25,389                                        | 276,653                                       | 3,107,536                      | 32,946,645        | 36,710                | 68,613                        | 1,669,559                                         | 39,547,800    |
| 1998             | 1,269,673                            | 34,373                                        | 381,853                                       | 2,733,889                      | 29,719,479        | 41,834                | 60,057                        | 1,800,922                                         | 36,042,080    |
| 1999             | 1,220,198                            | 53,899                                        | 366,504                                       | 3,051,649                      | 31,032,268        | 73,158                | 62,333                        | 4,004,515                                         | 39,864,523    |
| 2000             | 1,093,458                            | 37,922                                        | 303,259                                       | 2,582,958                      | 26,606,360        | 61,858                | 54,639                        | 2,783,050                                         | 33,523,504    |
| 2001             | 1,767,905                            | 62,679                                        | 327,968                                       | 2,632,892                      | 33,967,664        | 79,891                | 100,521                       | 3,048,118                                         | 41,987,639    |
| 2002             | 1,340,915                            | 43,367                                        | 321,476                                       | 2,957,019                      | 28,631,934        | 72,944                | 77,296                        | 2,500,695                                         | 35,945,647    |
| 2003             | 1,410,424                            | 48,093                                        | 340,003                                       | 3,257,112                      | 31,583,096        | 88,804                | 78,269                        | 2,837,756                                         | 39,643,557    |
| 2004             | 1,469,385                            | 77,202                                        | 343,909                                       | 3,701,642                      | 30,721,725        | 231,787               | 81,127                        | 2,370,670                                         | 38,997,446    |
| 2005             | 2,099,651                            | 89,829                                        | 356,697                                       | 3,295,863                      | 42,361,142        | 424,670               | 82,619                        | 3,492,683                                         | 52,203,154    |
| 2006             | 1,786,850                            | 99,237                                        | 356,343                                       | 3,778,380                      | 40,541,204        | 285,481               | 94,018                        | 2,916,324                                         | 49,857,838    |
| 2007             | 2,063,054                            | 93,151                                        | 367,989                                       | 4,699,110                      | 43,469,382        | 323,300               | 120,094                       | 3,324,220                                         | 54,460,300    |
| 2008             | 2,321,355                            | 106,519                                       | 380,595                                       | 5,198,490                      | 48,449,124        | 364,785               | 138,252                       | 3,751,870                                         | 60,710,990    |
| 2009             | 2,001,279                            | 89,873                                        | 363,376                                       | 4,889,920                      | 42,808,816        | 317,323               | 116,397                       | 3,224,903                                         | 53,811,887    |
| 2010             | 2,168,385                            | 98,617                                        | 363,827                                       | 5,292,939                      | 45,529,471        | 344,660               | 131,383                       | 3,504,454                                         | 57,433,736    |
| 2011             | 1,893,719                            | 84,235                                        | 365,305                                       | 4,600,665                      | 40,465,453        | 299,847               | 110,773                       | 3,044,696                                         | 50,864,693    |
| 2012             | 1,896,879                            | 84,401                                        | 365,870                                       | 4,619,970                      | 40,765,877        | 300,687               | 109,306                       | 3,049,963                                         | 51,192,953    |
| 2013             | 1,972,234                            | 88,341                                        | 366,014                                       | 4,791,203                      | 41,812,120        | 312,899               | 117,479                       | 3,175,958                                         | 52,636,248    |
| 2014             | 1,808,992                            | 79,798                                        | 363,349                                       | 4,401,741                      | 39,227,012        | 286,311               | 102,210                       | 2,902,836                                         | 49,172,249    |
| 2015             | 1,874,633                            | 83,231                                        | 360,236                                       | 4,482,043                      | 40,219,457        | 296,973               | 108,711                       | 3,012,595                                         | 50,437,879    |
| 2016             | 1,993,768                            | 89,467                                        | 353,913                                       | 4,705,710                      | 42,153,054        | 316,346               | 119,400                       | 3,211,967                                         | 52,943,625    |
| 2017             | 1,881,726                            | 83,604                                        | 339,826                                       | 4,304,555                      | 40,310,394        | 298,094               | 109,541                       | 3,024,510                                         | 50,352,250    |
| 2018             | 1,892,092                            | 84,143                                        | 317,309                                       | 4,221,675                      | 40,668,952        | 290,456               | 108,895                       | 3,041,780                                         | 50,625,302    |
| 2019             | 2,014,388                            | 90,544                                        | 308,520                                       | 4,454,948                      | 42,643,983        | 309,673               | 119,957                       | 3,246,450                                         | 53,188,463    |
| 2020             | 1,899,353                            | 84,524                                        | 306,942                                       | 4,141,918                      | 40,657,766        | 290,457               | 110,619                       | 3,053,971                                         | 50,545,550    |
| 2021             | 1,888,932                            | 83,979                                        | 305,966                                       | 4,096,411                      | 40,518,482        | 288,608               | 109,454                       | 3,036,521                                         | 50,328,353    |
| 2022             | 1,823,042                            | 80,531                                        | 305,264                                       | 3,926,398                      | 39,389,974        | 277,679               | 103,998                       | 2,926,290                                         | 48,833,176    |
| 2023             | 1,877,547                            | 83,386                                        | 304,618                                       | 4,051,673                      | 40,239,769        | 286,503               | 109,184                       | 3,017,552                                         | 49,970,232    |
| 2024             | 1,958,881                            | 87,640                                        | 304,185                                       | 4,245,328                      | 41,601,404        | 299,826               | 116,144                       | 3,153,570                                         | 51,766,978    |
| 2025             | 1,820,685                            | 80,408                                        | 303,889                                       | 3,917,030                      | 39,484,759        | 277,313               | 102,706                       | 2,922,336                                         | 48,909,126    |
| 2026             | 1,987,373                            | 89,132                                        | 303,147                                       | 4,306,968                      | 42,012,869        | 304,360               | 119,104                       | 3,201,278                                         | 52,324,231    |
| 2027             | 1,898,218                            | 84,460                                        | 303,325                                       | 4,093,930                      | 40,645,310        | 289,751               | 110,503                       | 3,051,950                                         | 50,477,447    |
| 2028             | 1,912,327                            | 85,205                                        | 300,043                                       | 4,123,875                      | 40,835,028        | 291,976               | 109,182                       | 3,075,743                                         | 50,733,379    |
| 2029             | 1,872,767                            | 83,134                                        | 300,076                                       | 4,027,052                      | 40,211,408        | 285,427               | 108,354                       | 3,009,502                                         | 49,897,720    |
| 2030             | 1,902,713                            | 84,703                                        | 299,551                                       | 4,093,701                      | 40,659,806        | 290,256               | 111,342                       | 3,059,662                                         | 50,501,734    |
| 2031             | 1,829,414                            | 80,860                                        | 298,766                                       | 3,902,821                      | 39,540,564        | 277,873               | 104,215                       | 2,936,819                                         | 48,971,332    |
| 2032             | 1,892,064                            | 84,147                                        | 297,700                                       | 4,052,297                      | 40,499,192        | 288,160               | 110,252                       | 3,041,881                                         | 50,265,693    |
| 2033             | 1,967,847                            | 88,108                                        | 297,895                                       | 4,241,075                      | 41,991,252        | 300,564               | 114,967                       | 3,168,552                                         | 52,170,260    |
| 2034             | 1,894,499                            | 84,270                                        | 297,310                                       | 4,050,210                      | 40,619,387        | 288,324               | 109,852                       | 3,045,830                                         | 50,389,682    |
| 2035             | 1,957,231                            | 87,556                                        | 296,054                                       | 4,204,841                      | 41,806,416        | 298,173               | 114,157                       | 3,150,883                                         | 51,915,311    |
| TOTAL            | 90,264,924                           | 3,877,910                                     | 17,630,077                                    | 204,309,340                    | 2,014,143,559     | 11,263,687            | 5,132,389                     | 156,114,035                                       | 2,502,735,921 |

**TABLE B-19. Total Transportation Charge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                         |                                    |                                          |                                                  |                           |                                               |                           |                               |                                                         |                                                      |
|------------------|--------------------------------------------------|------------------------------------|------------------------------------------|--------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|---------------------------------------------------------|------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline -<br>Lake<br>Arrowhead<br>Water Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water District |
|                  | [20]                                             | [21]                               | [22]                                     | [23]                                             | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                    | [29]                                                 |
| 1961             | 0                                                | 0                                  | 0                                        | 0                                                | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1962             | 0                                                | 0                                  | 0                                        | 0                                                | 0                         | 0                                             | 0                         | 0                             | 0                                                       | 0                                                    |
| 1963             | 33,309                                           | 0                                  | 0                                        | 0                                                | 0                         | 0                                             | 0                         | 0                             | 51,711                                                  | 0                                                    |
| 1964             | 62,847                                           | 27,438                             | 16,286                                   | 4,369                                            | 37,145                    | 1,142                                         | 28,427                    | 8,202                         | 82,782                                                  | 34,973                                               |
| 1965             | 118,565                                          | 52,989                             | 28,459                                   | 7,191                                            | 40,756                    | 2,081                                         | 50,300                    | 15,217                        | 135,023                                                 | 35,333                                               |
| 1966             | 215,713                                          | 101,232                            | 51,184                                   | 12,474                                           | 73,129                    | 3,752                                         | 90,369                    | 27,670                        | 232,426                                                 | 61,445                                               |
| 1967             | 417,348                                          | 210,746                            | 98,904                                   | 23,464                                           | 141,365                   | 7,282                                         | 175,119                   | 54,006                        | 433,210                                                 | 115,536                                              |
| 1968             | 744,206                                          | 478,065                            | 176,688                                  | 41,496                                           | 251,125                   | 12,866                                        | 311,081                   | 95,438                        | 781,930                                                 | 208,864                                              |
| 1969             | 1,072,647                                        | 724,212                            | 264,900                                  | 61,208                                           | 370,850                   | 18,688                                        | 458,937                   | 138,023                       | 1,205,472                                               | 321,659                                              |
| 1970             | 1,395,848                                        | 904,061                            | 371,728                                  | 89,673                                           | 519,163                   | 25,223                                        | 632,989                   | 184,783                       | 1,777,650                                               | 467,431                                              |
| 1971             | 1,727,773                                        | 1,087,835                          | 503,422                                  | 128,321                                          | 712,537                   | 31,827                                        | 857,146                   | 231,214                       | 2,538,403                                               | 659,218                                              |
| 1972             | 2,047,032                                        | 1,306,587                          | 640,299                                  | 181,162                                          | 925,397                   | 42,393                                        | 1,111,738                 | 274,527                       | 3,404,963                                               | 864,867                                              |
| 1973             | 2,138,133                                        | 1,322,591                          | 777,545                                  | 183,668                                          | 1,136,869                 | 43,472                                        | 1,174,905                 | 287,241                       | 3,988,091                                               | 946,446                                              |
| 1974             | 2,202,002                                        | 1,381,959                          | 794,192                                  | 193,236                                          | 1,163,708                 | 45,201                                        | 1,206,983                 | 291,996                       | 4,015,030                                               | 989,817                                              |
| 1975             | 2,378,974                                        | 1,449,891                          | 836,481                                  | 205,992                                          | 1,231,490                 | 48,479                                        | 1,274,129                 | 304,204                       | 4,175,588                                               | 1,088,088                                            |
| 1976             | 2,732,227                                        | 1,445,191                          | 883,730                                  | 215,036                                          | 1,307,153                 | 51,452                                        | 1,316,775                 | 313,608                       | 4,316,061                                               | 1,141,338                                            |
| 1977             | 2,675,090                                        | 1,514,203                          | 780,142                                  | 225,984                                          | 1,144,829                 | 47,339                                        | 1,388,646                 | 329,888                       | 4,570,285                                               | 1,196,952                                            |
| 1978             | 2,992,822                                        | 1,598,916                          | 961,523                                  | 230,990                                          | 1,420,338                 | 47,108                                        | 1,388,796                 | 321,604                       | 4,476,611                                               | 1,208,453                                            |
| 1979             | 3,546,421                                        | 1,633,427                          | 1,029,691                                | 237,905                                          | 1,518,496                 | 48,384                                        | 1,516,371                 | 332,394                       | 4,438,819                                               | 1,152,106                                            |
| 1980             | 4,093,075                                        | 1,714,996                          | 1,119,626                                | 259,351                                          | 1,679,613                 | 53,338                                        | 1,635,817                 | 360,382                       | 4,852,083                                               | 1,269,177                                            |
| 1981             | 4,423,525                                        | 1,968,507                          | 1,195,134                                | 271,128                                          | 1,797,033                 | 77,794                                        | 1,756,226                 | 391,786                       | 5,240,580                                               | 1,357,401                                            |
| 1982             | 3,986,028                                        | 2,060,065                          | 1,245,674                                | 280,261                                          | 1,883,312                 | 55,949                                        | 1,952,688                 | 406,809                       | 5,427,276                                               | 1,564,903                                            |
| 1983             | 5,176,847                                        | 2,322,172                          | 1,837,054                                | 333,027                                          | 2,827,158                 | 69,370                                        | 2,026,753                 | 494,603                       | 6,037,306                                               | 1,556,367                                            |
| 1984             | 7,212,801                                        | 3,363,792                          | 2,920,693                                | 445,283                                          | 4,553,156                 | 75,761                                        | 2,254,358                 | 553,232                       | 7,065,792                                               | 2,331,555                                            |
| 1985             | 8,928,301                                        | 3,748,085                          | 3,717,539                                | 540,332                                          | 5,827,873                 | 79,219                                        | 2,364,827                 | 758,960                       | 7,756,676                                               | 2,378,093                                            |
| 1986             | 8,827,289                                        | 4,315,570                          | 4,143,184                                | 577,416                                          | 6,515,636                 | 102,386                                       | 2,474,061                 | 999,968                       | 7,873,869                                               | 3,047,434                                            |
| 1987             | 8,844,016                                        | 4,156,106                          | 3,998,374                                | 604,923                                          | 6,363,049                 | 121,795                                       | 2,506,458                 | 1,026,303                     | 9,240,891                                               | 3,033,831                                            |
| 1988             | 8,318,897                                        | 4,219,308                          | 3,997,055                                | 615,940                                          | 6,426,199                 | 124,654                                       | 2,560,945                 | 779,724                       | 9,521,529                                               | 2,828,684                                            |
| 1989             | 8,695,945                                        | 4,099,133                          | 3,641,415                                | 586,536                                          | 5,896,166                 | 170,557                                       | 2,508,279                 | 1,442,530                     | 9,860,529                                               | 2,930,080                                            |
| 1990             | 9,983,987                                        | 4,539,471                          | 4,316,516                                | 620,333                                          | 6,956,699                 | 289,335                                       | 2,703,882                 | 1,639,730                     | 9,811,261                                               | 3,677,785                                            |
| 1991             | 6,484,746                                        | 3,508,397                          | 2,823,346                                | 567,387                                          | 4,492,594                 | 175,123                                       | 3,462,995                 | 1,294,508                     | 8,938,057                                               | 3,035,310                                            |
| 1992             | 8,585,673                                        | 4,465,956                          | 2,894,932                                | 470,101                                          | 4,609,710                 | 121,321                                       | 4,264,418                 | 1,129,477                     | 8,589,549                                               | 2,979,755                                            |
| 1993             | 8,969,300                                        | 4,097,366                          | 3,092,789                                | 472,751                                          | 4,934,951                 | 157,733                                       | 4,143,277                 | 1,347,409                     | 9,521,838                                               | 3,139,666                                            |
| 1994             | 11,156,140                                       | 4,710,354                          | 3,137,490                                | 554,731                                          | 5,007,134                 | 225,794                                       | 5,136,234                 | 1,698,881                     | 10,227,799                                              | 4,076,838                                            |
| 1995             | 10,757,339                                       | 4,967,410                          | 3,910,360                                | 509,093                                          | 6,281,228                 | 155,546                                       | 4,224,022                 | 1,527,143                     | 9,459,288                                               | 3,715,005                                            |
| 1996             | 11,126,138                                       | 5,155,485                          | 6,847,257                                | 553,160                                          | 11,124,041                | 150,598                                       | 4,290,870                 | 1,867,098                     | 9,885,354                                               | 3,807,043                                            |
| 1997             | 11,376,427                                       | 4,922,203                          | 6,408,674                                | 579,209                                          | 7,362,617                 | 144,818                                       | 4,594,313                 | 1,869,201                     | 11,283,209                                              | 4,037,467                                            |
| 1998             | 9,918,902                                        | 4,561,465                          | 5,509,370                                | 546,699                                          | 5,889,643                 | 146,245                                       | 5,632,264                 | 1,477,869                     | 11,204,690                                              | 3,323,757                                            |
| 1999             | 11,303,646                                       | 4,887,688                          | 4,454,390                                | 633,793                                          | 5,920,321                 | 145,097                                       | 5,813,224                 | 1,835,894                     | 12,277,264                                              | 4,158,613                                            |
| 2000             | 10,534,071                                       | 6,822,985                          | 2,879,421                                | 594,015                                          | 4,303,208                 | 115,236                                       | 5,638,805                 | 1,447,804                     | 11,863,298                                              | 3,248,531                                            |
| 2001             | 20,608,862                                       | 12,456,358                         | 3,923,571                                | 797,776                                          | 6,297,948                 | 127,739                                       | 6,335,591                 | 3,346,039                     | 17,807,354                                              | 3,394,005                                            |
| 2002             | 11,841,946                                       | 5,590,071                          | 3,146,234                                | 755,366                                          | 5,015,827                 | 109,684                                       | 5,458,124                 | 2,709,672                     | 18,528,975                                              | 4,739,428                                            |
| 2003             | 13,213,422                                       | 10,503,085                         | 3,337,865                                | 729,004                                          | 5,330,812                 | 115,142                                       | 7,320,833                 | 2,259,410                     | 16,395,659                                              | 4,911,675                                            |
| 2004             | 13,973,128                                       | 11,680,709                         | 3,861,857                                | 818,298                                          | 5,211,473                 | 124,043                                       | 7,180,855                 | 2,476,364                     | 20,396,213                                              | 4,327,465                                            |
| 2005             | 15,571,593                                       | 11,419,615                         | 17,665,540                               | 590,470                                          | 10,578,433                | 122,700                                       | 7,340,359                 | 2,727,962                     | 18,213,494                                              | 4,785,693                                            |
| 2006             | 18,116,738                                       | 12,063,423                         | 23,583,386                               | 1,065,305                                        | 8,546,381                 | 238,495                                       | 12,370,664                | 3,802,036                     | 26,294,706                                              | 5,378,524                                            |
| 2007             | 17,239,143                                       | 15,710,457                         | 35,533,265                               | 1,330,792                                        | 11,074,703                | 559,479                                       | 9,712,340                 | 5,128,310                     | 30,291,706                                              | 5,591,395                                            |
| 2008             | 35,366,286                                       | 21,730,850                         | 41,758,366                               | 2,151,555                                        | 15,956,295                | 639,697                                       | 23,773,420                | 5,857,692                     | 38,001,960                                              | 9,531,845                                            |
| 2009             | 34,491,295                                       | 19,456,507                         | 37,710,570                               | 1,881,251                                        | 14,199,820                | 572,846                                       | 23,305,769                | 5,235,871                     | 34,257,445                                              | 8,488,546                                            |
| 2010             | 35,973,686                                       | 20,298,784                         | 39,313,293                               | 1,948,564                                        | 14,828,696                | 597,083                                       | 24,260,260                | 5,460,277                     | 35,448,964                                              | 8,830,424                                            |
| 2011             | 29,830,991                                       | 19,628,506                         | 34,184,951                               | 1,630,263                                        | 12,750,809                | 494,196                                       | 19,793,560                | 4,507,119                     | 31,311,288                                              | 7,659,898                                            |
| 2012             | 31,016,127                                       | 21,110,847                         | 35,405,649                               | 1,686,328                                        | 13,234,886                | 513,488                                       | 20,608,088                | 4,685,643                     | 32,231,099                                              | 7,924,149                                            |
| 2013             | 30,647,122                                       | 20,825,071                         | 35,093,009                               | 1,657,015                                        | 13,078,620                | 508,051                                       | 20,357,052                | 4,635,137                     | 31,714,608                                              | 7,797,729                                            |
| 2014             | 29,613,183                                       | 19,982,201                         | 33,902,755                               | 1,625,570                                        | 12,645,922                | 490,601                                       | 19,705,424                | 4,475,026                     | 31,162,102                                              | 7,612,168                                            |
| 2015             | 29,707,862                                       | 20,063,434                         | 33,985,598                               | 1,609,107                                        | 12,644,023                | 492,112                                       | 19,773,627                | 4,490,094                     | 30,833,534                                              | 7,551,589                                            |
| 2016             | 30,832,247                                       | 20,805,142                         | 34,995,213                               | 1,686,641                                        | 13,104,483                | 510,296                                       | 20,522,297                | 4,660,481                     | 32,140,041                                              | 7,884,031                                            |
| 2017             | 29,417,476                                       | 19,861,367                         | 33,732,805                               | 1,601,471                                        | 12,519,332                | 487,042                                       | 19,632,471                | 4,449,327                     | 30,654,599                                              | 7,492,033                                            |
| 2018             | 30,372,118                                       | 20,418,487                         | 34,485,233                               | 1,652,622                                        | 12,882,360                | 502,358                                       | 20,357,140                | 4,595,426                     | 31,456,811                                              | 7,715,737                                            |
| 2019             | 31,114,154                                       | 20,697,096                         | 35,158,195                               | 1,687,160                                        | 13,139,536                | 513,938                                       | 20,699,238                | 4,707,331                     | 32,021,445                                              | 7,863,566                                            |
| 2020             | 29,280,229                                       | 19,430,334                         | 32,818,908                               | 1,576,118                                        | 12,248,321                | 482,840                                       | 19,596,344                | 4,425,606                     | 29,909,562                                              | 7,306,565                                            |
| 2021             | 29,084,080                                       | 19,202,596                         | 32,350,989                               | 1,531,836                                        | 12,042,389                | 478,469                                       | 19,410,094                | 4,391,962                     | 29,077,908                                              | 7,112,992                                            |
| 2022             | 28,166,163                                       | 18,441,401                         | 30,980,876                               | 1,489,034                                        | 11,578,751                | 463,277                                       | 18,779,293                | 4,253,068                     | 28,229,677                                              | 6,874,557                                            |
| 2023             | 28,442,963                                       | 18,673,299                         | 30,287,838                               | 1,512,367                                        | 11,548,381                | 467,595                                       | 18,951,296                | 4,294,248                     | 28,535,479                                              | 6,944,566                                            |
| 2024             | 29,237,843                                       | 19,194,557                         | 31,035,578                               | 1,530,381                                        | 11,838,951                | 480,518                                       | 19,398,549                | 4,413,988                     | 28,859,780                                              | 7,062,060                                            |
| 2025             | 28,692,679                                       | 18,783,944                         | 30,309,094                               | 1,507,362                                        | 11,609,795                | 471,620                                       | 19,092,829                | 4,331,820                     | 28,472,084                                              | 6,951,047                                            |
| 2026             | 29,184,962                                       | 19,195,898                         | 30,981,484                               | 1,540,463                                        | 11,809,015                | 479,584                                       | 19,366,207                | 4,405,932                     | 28,954,321                                              | 7,067,372                                            |
| 2027             | 28,850,249                                       | 18,765,237                         | 30,151,519                               | 1,505,625                                        | 11,589,778                | 474,132                                       | 19,149,586                | 4,355,562                     | 28,365,638                                              | 6,929,693                                            |
| 2028             | 28,752,687                                       | 18,963,021                         | 30,265,359                               | 1,491,984                                        | 11,560,287                | 472,518                                       | 19,089,685                | 4,340,910                     | 28,094,635                                              | 6,867,561                                            |
| 2029             | 28,524,684                                       | 18,555,352                         | 30,042,449                               | 1,504,328                                        | 11,497,755                | 468,790                                       | 18,941,136                | 4,306,680                     | 28,335,115                                              | 6,898,321                                            |
| 2030             | 28,510,576                                       | 18,575,184                         | 30,043,931                               | 1,505,143                                        | 11,494,385                | 468,546                                       | 18,934,536                | 4,304,802                     | 28,341,249                                              | 6,898,232                                            |
| 2031             | 28,173,057                                       | 18,167,247                         | 29,888,736                               | 1,455,452                                        | 11,345,716                | 463,020                                       | 18,769,961                | 4,254,483                     | 27,485,444                                              | 6,709,430                                            |
| 2032             | 28,364,587                                       | 18,454,229                         | 29,647,860                               | 1,491,679                                        | 11,388,327                | 466,108                                       | 18,815,199                | 4,283,672                     | 28,146,594                                              | 6,847,623                                            |
| 2033             | 30,339,595                                       | 19,690,130                         | 31,845,386                               | 1,575,060                                        | 12,214,037                | 498,198                                       | 20,164,397                | 4,582,643                     | 29,532,530                                              | 7,261,775                                            |
| 2034             | 28,584,636                                       | 18,499,605                         | 30,039,114                               | 1,483,326                                        | 11,487,158                | 469,644                                       | 19,009,396                | 4,320,475                     | 28,007,901                                              | 6,838,466                                            |
| 2035             | 30,663,868                                       | 19,418,345                         | 32,067,973                               | 1,611,646                                        | 12,285,995                | 503,355                                       | 20,234,491                | 4,635,650                     | 30,120,213                                              | 7,375,144                                            |
| TOTAL            | 1,157,004,284                                    | 730,158,243                        | 1,095,839,919                            | 63,874,000                                       | 523,225,089               | 18,651,562                                    | 701,137,535               | 177,669,441                   | 1,223,292,316                                           | 313,595,125                                          |

**TABLE B-19. Total Transportation Charge for Each Contractor**

| Calendar<br><br>Year | (in dollars)                         |                                                                 |                                                |                | Sheet 4 of 4               |                       |                            |           |                                           |                    |
|----------------------|--------------------------------------|-----------------------------------------------------------------|------------------------------------------------|----------------|----------------------------|-----------------------|----------------------------|-----------|-------------------------------------------|--------------------|
|                      | SOUTHERN CALIFORNIA AREA (continued) |                                                                 |                                                |                | FEATHER RIVER AREA         |                       |                            |           | South Bay<br>Area<br>Future<br>Contractor | GRAND<br><br>TOTAL |
|                      | San Gorgonio<br>Pass<br>Water Agency | The Metropolitan<br>Water District<br>of Southern<br>California | Ventura County<br>Flood<br>Control<br>District | Total          | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total     |                                           |                    |
|                      | [30]                                 | [31]                                                            | [32]                                           | [33]           | [34]                       | [35]                  | [36]                       | [37]      | [38]                                      | [39]               |
| 1961                 | 0                                    | 0                                                               | 0                                              | 0              | 0                          | 0                     | 0                          | 0         | 0                                         | 0                  |
| 1962                 | 0                                    | 0                                                               | 0                                              | 0              | 0                          | 0                     | 0                          | 0         | 3,219                                     | 79,888             |
| 1963                 | 0                                    | 690,539                                                         | 0                                              | 775,559        | 0                          | 0                     | 0                          | 0         | 12,626                                    | 1,625,689          |
| 1964                 | 21,728                               | 1,260,042                                                       | 9,375                                          | 1,594,755      | 0                          | 0                     | 0                          | 0         | 13,938                                    | 2,801,552          |
| 1965                 | 21,859                               | 2,179,810                                                       | 17,761                                         | 2,705,344      | 0                          | 0                     | 405                        | 405       | 28,937                                    | 4,799,776          |
| 1966                 | 37,952                               | 3,898,819                                                       | 33,415                                         | 4,839,578      | 0                          | 0                     | 564                        | 564       | 31,321                                    | 7,380,275          |
| 1967                 | 71,260                               | 7,691,085                                                       | 68,133                                         | 9,507,458      | 0                          | 0                     | 562                        | 562       | 47,718                                    | 12,788,780         |
| 1968                 | 128,877                              | 15,313,065                                                      | 142,760                                        | 18,686,461     | 0                          | 0                     | 564                        | 564       | 46,945                                    | 24,929,162         |
| 1969                 | 198,704                              | 23,145,744                                                      | 215,144                                        | 28,196,187     | 0                          | 0                     | 3,190                      | 3,190     | 52,963                                    | 36,026,612         |
| 1970                 | 289,546                              | 30,607,434                                                      | 273,523                                        | 37,539,052     | 0                          | 0                     | 15,116                     | 15,116    | 69,744                                    | 46,159,647         |
| 1971                 | 409,205                              | 39,946,463                                                      | 342,325                                        | 49,175,690     | 0                          | 0                     | 15,996                     | 15,996    | 55,532                                    | 58,790,422         |
| 1972                 | 537,044                              | 52,933,606                                                      | 422,192                                        | 64,691,808     | 0                          | 0                     | 17,367                     | 17,367    | 80,412                                    | 76,523,080         |
| 1973                 | 587,814                              | 57,257,279                                                      | 435,541                                        | 70,279,596     | 0                          | 0                     | 17,328                     | 17,328    | 54,219                                    | 81,197,537         |
| 1974                 | 611,275                              | 61,759,841                                                      | 455,447                                        | 75,110,687     | 0                          | 0                     | 17,472                     | 17,472    | 76,783                                    | 86,915,624         |
| 1975                 | 644,464                              | 66,739,819                                                      | 478,284                                        | 80,855,883     | 0                          | 0                     | 18,400                     | 18,400    | 84,547                                    | 94,061,042         |
| 1976                 | 668,152                              | 68,467,779                                                      | 475,466                                        | 83,333,969     | 0                          | 0                     | 17,471                     | 17,471    | 106,717                                   | 97,127,311         |
| 1977                 | 696,350                              | 66,216,668                                                      | 506,941                                        | 81,292,717     | 0                          | 0                     | 18,227                     | 18,227    | 98,618                                    | 95,162,383         |
| 1978                 | 708,874                              | 72,917,066                                                      | 523,053                                        | 88,796,153     | 0                          | 0                     | 17,375                     | 17,375    | 100,786                                   | 104,646,223        |
| 1979                 | 712,699                              | 72,648,617                                                      | 526,278                                        | 89,341,608     | 0                          | 0                     | 20,573                     | 20,573    | 119,352                                   | 106,990,787        |
| 1980                 | 777,813                              | 79,908,126                                                      | 571,100                                        | 98,294,496     | 0                          | 0                     | 17,755                     | 17,755    | 178,812                                   | 116,943,823        |
| 1981                 | 805,858                              | 91,241,966                                                      | 636,261                                        | 111,163,198    | 0                          | 0                     | 21,188                     | 21,188    | 185,347                                   | 131,713,594        |
| 1982                 | 853,227                              | 93,125,063                                                      | 670,228                                        | 113,511,482    | 0                          | 0                     | 28,417                     | 28,417    | 173,894                                   | 135,089,036        |
| 1983                 | 951,954                              | 101,767,502                                                     | 803,439                                        | 126,203,552    | 0                          | 0                     | 19,271                     | 19,271    | 220,926                                   | 151,578,866        |
| 1984                 | 1,072,455                            | 137,486,443                                                     | 868,812                                        | 170,204,133    | 0                          | 0                     | 21,109                     | 21,109    | 225,959                                   | 208,148,992        |
| 1985                 | 1,120,667                            | 173,421,376                                                     | 908,613                                        | 211,550,562    | 0                          | 0                     | 20,233                     | 20,233    | 340,322                                   | 258,385,266        |
| 1986                 | 1,149,524                            | 193,220,534                                                     | 937,154                                        | 234,184,025    | 0                          | 0                     | 20,134                     | 20,134    | 279,227                                   | 284,217,289        |
| 1987                 | 1,171,823                            | 178,742,796                                                     | 907,876                                        | 220,808,240    | 0                          | 0                     | 19,736                     | 19,736    | 345,116                                   | 272,449,227        |
| 1988                 | 1,208,011                            | 190,221,758                                                     | 904,709                                        | 231,727,412    | 0                          | 0                     | 17,895                     | 17,895    | 365,207                                   | 284,520,863        |
| 1989                 | 1,194,715                            | 193,213,383                                                     | 932,440                                        | 234,271,708    | 0                          | 0                     | 19,153                     | 19,153    | 422,329                                   | 287,594,089        |
| 1990                 | 1,297,422                            | 239,518,227                                                     | 1,486,593                                      | 286,841,241    | 0                          | 0                     | 18,143                     | 18,143    | 474,284                                   | 339,729,949        |
| 1991                 | 1,354,718                            | 179,928,498                                                     | 1,140,955                                      | 217,206,634    | 0                          | 0                     | 21,012                     | 21,012    | 214,683                                   | 255,467,415        |
| 1992                 | 1,348,975                            | 196,144,138                                                     | 1,025,119                                      | 236,629,123    | 0                          | 0                     | 18,008                     | 18,008    | 443,676                                   | 286,152,099        |
| 1993                 | 1,507,336                            | 169,470,130                                                     | 1,067,967                                      | 212,102,513    | 0                          | 0                     | 20,993                     | 20,993    | 599,571                                   | 270,943,980        |
| 1994                 | 1,497,855                            | 209,289,443                                                     | 1,009,019                                      | 257,727,713    | 0                          | 0                     | 19,644                     | 19,644    | 609,932                                   | 316,376,201        |
| 1995                 | 1,520,392                            | 173,396,272                                                     | 1,061,154                                      | 221,484,251    | 0                          | 0                     | 20,272                     | 20,272    | 534,971                                   | 290,063,309        |
| 1996                 | 1,526,936                            | 181,379,764                                                     | 1,103,083                                      | 238,816,826    | 0                          | 0                     | 25,373                     | 25,373    | 571,857                                   | 319,533,594        |
| 1997                 | 1,731,236                            | 186,711,858                                                     | 1,216,389                                      | 242,237,621    | 0                          | 0                     | 24,815                     | 24,815    | 428,638                                   | 323,875,094        |
| 1998                 | 1,925,051                            | 168,709,246                                                     | 1,238,270                                      | 220,083,469    | 0                          | 0                     | 18,164                     | 18,164    | 465,140                                   | 302,843,123        |
| 1999                 | 2,167,435                            | 189,484,555                                                     | 1,250,943                                      | 244,332,863    | 0                          | 0                     | 17,782                     | 17,782    | 559,344                                   | 335,326,769        |
| 2000                 | 2,425,062                            | 185,127,820                                                     | 1,321,565                                      | 236,321,821    | 0                          | 0                     | 17,872                     | 17,872    | 0                                         | 321,413,858        |
| 2001                 | 3,386,792                            | 374,670,013                                                     | 1,616,322                                      | 454,768,370    | 0                          | 0                     | 17,686                     | 17,686    | 0                                         | 555,793,496        |
| 2002                 | 4,794,822                            | 262,003,775                                                     | 1,639,518                                      | 330,333,441    | 0                          | 0                     | 20,994                     | 20,994    | 0                                         | 425,676,305        |
| 2003                 | 5,573,358                            | 289,209,085                                                     | 1,659,722                                      | 360,559,071    | 0                          | 0                     | 20,760                     | 20,760    | 0                                         | 458,713,317        |
| 2004                 | 6,037,598                            | 334,390,395                                                     | 1,892,278                                      | 412,370,675    | 0                          | 0                     | 20,821                     | 20,821    | 0                                         | 511,688,314        |
| 2005                 | 6,152,169                            | 315,185,641                                                     | 1,439,898                                      | 411,793,568    | 0                          | 0                     | 20,818                     | 20,818    | 0                                         | 525,229,629        |
| 2006                 | 6,890,198                            | 400,471,517                                                     | 1,830,986                                      | 520,652,359    | 0                          | 0                     | 20,467                     | 20,467    | 0                                         | 638,377,909        |
| 2007                 | 7,977,249                            | 477,970,133                                                     | 4,863,062                                      | 622,982,036    | 0                          | 0                     | 20,567                     | 20,567    | 0                                         | 750,864,313        |
| 2008                 | 10,082,292                           | 446,401,844                                                     | 5,496,312                                      | 656,748,414    | 0                          | 0                     | 20,617                     | 20,617    | 0                                         | 796,698,477        |
| 2009                 | 9,453,711                            | 400,994,267                                                     | 4,900,054                                      | 594,947,952    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 725,158,258        |
| 2010                 | 9,658,177                            | 416,613,331                                                     | 5,120,036                                      | 618,351,575    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 753,697,744        |
| 2011                 | 8,956,274                            | 445,634,872                                                     | 4,225,232                                      | 620,607,959    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 747,678,881        |
| 2012                 | 9,114,292                            | 462,787,712                                                     | 4,397,811                                      | 644,716,119    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 772,654,229        |
| 2013                 | 9,035,963                            | 456,632,396                                                     | 4,339,121                                      | 636,320,894    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 765,165,216        |
| 2014                 | 8,928,237                            | 440,394,301                                                     | 4,161,346                                      | 614,698,836    | 0                          | 0                     | 20,667                     | 20,667    | 0                                         | 738,324,157        |
| 2015                 | 8,887,787                            | 440,491,395                                                     | 4,175,719                                      | 614,705,881    | 0                          | 0                     | 20,262                     | 20,262    | 0                                         | 739,416,493        |
| 2016                 | 9,091,467                            | 457,362,118                                                     | 4,330,920                                      | 637,925,377    | 0                          | 0                     | 20,102                     | 20,102    | 0                                         | 765,544,595        |
| 2017                 | 8,852,372                            | 435,746,277                                                     | 4,124,287                                      | 608,570,859    | 0                          | 0                     | 20,105                     | 20,105    | 0                                         | 732,504,310        |
| 2018                 | 8,986,106                            | 447,219,971                                                     | 4,237,307                                      | 624,881,676    | 0                          | 0                     | 20,102                     | 20,102    | 0                                         | 748,932,813        |
| 2019                 | 9,074,931                            | 454,212,485                                                     | 4,294,662                                      | 635,183,737    | 0                          | 0                     | 17,477                     | 17,477    | 0                                         | 762,498,866        |
| 2020                 | 8,734,519                            | 423,756,368                                                     | 4,019,287                                      | 593,585,001    | 0                          | 0                     | 5,551                      | 5,551     | 0                                         | 716,651,782        |
| 2021                 | 8,611,697                            | 416,139,756                                                     | 3,963,576                                      | 583,398,344    | 0                          | 0                     | 4,725                      | 4,725     | 0                                         | 706,213,699        |
| 2022                 | 8,468,735                            | 399,076,464                                                     | 3,800,863                                      | 560,602,159    | 0                          | 0                     | 3,340                      | 3,340     | 0                                         | 681,020,920        |
| 2023                 | 8,512,324                            | 402,419,113                                                     | 3,848,397                                      | 564,437,866    | 0                          | 0                     | 3,339                      | 3,339     | 0                                         | 686,255,255        |
| 2024                 | 8,579,471                            | 412,470,309                                                     | 3,957,557                                      | 578,059,542    | 0                          | 0                     | 3,338                      | 3,338     | 0                                         | 702,663,305        |
| 2025                 | 8,512,820                            | 403,021,254                                                     | 3,866,862                                      | 565,623,210    | 0                          | 0                     | 3,336                      | 3,336     | 0                                         | 686,480,270        |
| 2026                 | 8,584,730                            | 412,214,865                                                     | 3,955,396                                      | 577,740,229    | 0                          | 0                     | 3,334                      | 3,334     | 0                                         | 702,949,481        |
| 2027                 | 8,498,477                            | 401,030,732                                                     | 3,859,233                                      | 563,525,461    | 0                          | 0                     | 3,332                      | 3,332     | 0                                         | 686,178,022        |
| 2028                 | 8,459,282                            | 406,556,721                                                     | 3,911,849                                      | 568,826,499    | 0                          | 0                     | 3,330                      | 3,330     | 0                                         | 691,751,474        |
| 2029                 | 8,482,295                            | 398,262,663                                                     | 3,817,271                                      | 559,636,839    | 0                          | 0                     | 3,329                      | 3,329     | 0                                         | 681,384,702        |
| 2030                 | 8,482,389                            | 398,886,937                                                     | 3,821,156                                      | 560,267,066    | 0                          | 0                     | 3,327                      | 3,327     | 0                                         | 682,848,078        |
| 2031                 | 8,362,373                            | 388,587,152                                                     | 3,727,683                                      | 547,389,754    | 0                          | 0                     | 3,326                      | 3,326     | 0                                         | 667,755,299        |
| 2032                 | 8,451,236                            | 397,323,088                                                     | 3,800,151                                      | 557,480,353    | 0                          | 0                     | 3,324                      | 3,324     | 0                                         | 679,748,932        |
| 2033                 | 8,696,693                            | 421,589,768                                                     | 4,050,324                                      | 592,040,536    | 0                          | 0                     | 3,324                      | 3,324     | 0                                         | 717,384,434        |
| 2034                 | 8,441,516                            | 396,510,668                                                     | 3,801,105                                      | 557,493,010    | 0                          | 0                     | 3,323                      | 3,323     | 0                                         | 679,847,927        |
| 2035                 | 8,770,626                            | 422,030,578                                                     | 4,011,970                                      | 593,729,854    | 0                          | 0                     | 3,321                      | 3,321     | 0                                         | 717,108,356        |
| TOTAL                | 322,537,242                          | 18,413,450,536                                                  | 156,944,600                                    | 24,897,379,894 | 0                          | 0                     | 1,049,255                  | 1,049,255 | 8,723,612                                 | 30,431,231,472     |



**TABLE B-20A: Calculation of Delta Water Rates**

**Calculation in accordance with Article 53(i) of the Monterey Amendment**

(Values in millions of dollars [\$] or millions of acre-feet [AF] discounted to 2006 at 4.608 percent per annum)

| Procedure                                                                                                                                     | Capital Cost Component              | Minimum Operation, Maintenance, Power and Replacement Component <sup>a</sup> | Total Delta Water Rate       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                               | [ 1 ]                               | [ 2 ]                                                                        | [ 3 ]                        |
| <b>Commencing in 2007</b>                                                                                                                     |                                     |                                                                              |                              |
| Total Costs of "Initial" Project Conservation Facilities to be Reimbursed and Project Water Entitlements during the Project Repayment Period. | \$4,762.55 <sup>b</sup> 296.98 AF   | \$3,234.99 <sup>c</sup> 296.98 AF                                            | \$7,997.54 296.98 AF         |
| Less, Project Power Revenues to be Realized During the Project Repayment Period.                                                              | (1,731.49)                          | (689.61)                                                                     | (2,421.10)                   |
| Less, Delta Water Charges Paid and Project Water Entitlements, Prior to 2007                                                                  | (2,228.97) <sup>d</sup> (231.00) AF | (1,630.64) (231.00) AF                                                       | (3,859.61) (231.00) AF       |
| <b>TOTAL</b>                                                                                                                                  | <b>\$802.09 65.98 AF</b>            | <b>\$914.74 65.98 AF</b>                                                     | <b>\$1,716.83 65.98 AF</b>   |
| <b>Rate Applicable in 2007</b>                                                                                                                | <b>\$12.16 per acre-foot</b>        | <b>\$13.86 per acre-foot</b>                                                 | <b>\$26.02 per acre-foot</b> |

**Calculation under original provisions, without the Monterey Amendment**

(for Plumas County and Empire)

| Procedure                                                                                                                                     | Capital Cost Component              | Minimum Operation, Maintenance, Power and Replacement Component <sup>a</sup> | Total Delta Water Rate       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                               | [ 4 ]                               | [ 5 ]                                                                        | [ 6 ]                        |
| <b>Commencing in 2007</b>                                                                                                                     |                                     |                                                                              |                              |
| Total Costs of "Initial" Project Conservation Facilities to be Reimbursed and Project Water Entitlements during the Project Repayment Period. | \$4,750.63 <sup>b</sup> 296.98 AF   | \$3,221.00 <sup>c</sup> 296.98 AF                                            | \$7,971.62 296.98 AF         |
| Less, Project Power Revenues to be Realized During the Project Repayment Period.                                                              | (1,731.49)                          | (689.61)                                                                     | (2,421.10)                   |
| Less, Delta Water Charges Paid and Project Water Entitlements, Prior to 2007                                                                  | (2,228.97) <sup>d</sup> (231.00) AF | (1,630.64) (231.00) AF                                                       | (3,859.61) (231.00) AF       |
| <b>TOTAL</b>                                                                                                                                  | <b>\$790.17 65.98 AF</b>            | <b>\$900.75 65.98 AF</b>                                                     | <b>\$1,690.91 65.98 AF</b>   |
| <b>Rate Applicable in 2007</b>                                                                                                                | <b>\$11.98 per acre-foot</b>        | <b>\$13.65 per acre-foot</b>                                                 | <b>\$25.63 per acre-foot</b> |

a) Considering that all operating costs of Project Conservation Facilities will not vary with annual amounts of Project water delivered, and therefore are properly classified as "Minimum" OMP&R Costs. OMP&R costs exclude amounts for Conservation RAS.

b) Including net credits of \$4,850,000 for settlements as to the magnitude of Project Capital costs incurred prior to December 31, 1960, and net credits of \$6,678,320 for settlement as to the magnitude of Project Capital costs incurred from 1961 through 1978.

c) Includes conservation power costs and credits at San Luis.

d) Applying all Delta Water Charges paid prior to 1970 to reimburse Capital costs (the charge was not divided into components until 1970)

**TABLE B-20B. Delta Water Rates, by Facility**

(in dollars per acre-foot)

| Item                                         | Capital Cost Component | Minimum Operation, Maintenance, Power and Replacement Component | Total Delta Water Rate |
|----------------------------------------------|------------------------|-----------------------------------------------------------------|------------------------|
|                                              | [1]                    | [2]                                                             | [3]                    |
| <b>Initial Conservation Facilities</b>       |                        |                                                                 |                        |
| Oroville Division                            |                        |                                                                 |                        |
| Water Supply and power costs <sup>a</sup>    | 43.82                  | 24.66                                                           | 68.49                  |
| Less, Oroville Power Revenues                | <u>-26.24</u>          | <u>-10.45</u>                                                   | <u>-36.69</u>          |
| Subtotal                                     | 17.58                  | 14.21                                                           | 31.79                  |
| Delta Facilities <sup>b</sup>                | 12.51                  | 12.11                                                           | 24.62                  |
| California Aqueduct, portion                 |                        |                                                                 |                        |
| Reach 1                                      | 2.80                   | 4.57                                                            | 7.38                   |
| Reach 2A                                     | 1.67                   | 0.74                                                            | 2.41                   |
| Reach 2B                                     | 0.88                   | 0.40                                                            | 1.29                   |
| Reach 3                                      | <u>0.60</u>            | <u>0.23</u>                                                     | <u>0.84</u>            |
| Subtotal                                     | 5.96                   | 5.95                                                            | 11.91                  |
| San Luis Facilities                          | 8.44                   | 6.10                                                            | 14.54                  |
| Planning and preoperating costs through 2001 | 2.45                   | 0.00                                                            | 2.45                   |
| 45,000 AF relinquished costs                 | 0.18                   | 0.21                                                            | 0.39                   |
| Less, Capital Cost Credits                   | -1.18                  | 0.00                                                            | -1.18                  |
| Less, Delta Water Charges paid prior to 2007 | <u>-33.78</u>          | <u>-24.71</u>                                                   | <u>-58.50</u>          |
| Rate applicable in 2007                      | 12.16                  | 13.86                                                           | 26.02                  |

a) Includes revenue received from non-contractors.

b) Includes (1) Delta Facility planning costs, (2) Delta Studies costs, and (3) Suisun Marsh Facilities Costs.

Note: The OMP&R unit rates do not include amounts for Conservation RAS.

**TABLE B-21. Total Delta Water Charge for Each Contractor**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                        |            | SOUTH BAY AREA                         |                                        |                                            |             | CENTRAL COASTAL AREA                   |                                      |            |
|------------------|--------------------------|------------------------|------------|----------------------------------------|----------------------------------------|--------------------------------------------|-------------|----------------------------------------|--------------------------------------|------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total      | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total       | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total      |
|                  | [1]                      | [2]                    | [3]        | [4]                                    | [5]                                    | [6]                                        | [7]         | [8]                                    | [9]                                  | [10]       |
| 1964             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0          |
| 1965             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0          |
| 1966             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0           | 0                                      | 0                                    | 0          |
| 1967             | 0                        | 0                      | 0          | 14,000                                 | 50,050                                 | 177,100                                    | 241,150     | 0                                      | 0                                    | 0          |
| 1968             | 0                        | 0                      | 0          | 19,156                                 | 29,701                                 | 193,245                                    | 242,102     | 0                                      | 0                                    | 0          |
| 1969             | 0                        | 0                      | 0          | 30,324                                 | 44,096                                 | 215,483                                    | 289,903     | 0                                      | 0                                    | 0          |
| 1970             | 0                        | 0                      | 0          | 80,908                                 | 107,730                                | 585,200                                    | 773,838     | 0                                      | 0                                    | 0          |
| 1971             | 0                        | 0                      | 0          | 57,320                                 | 123,080                                | 637,120                                    | 817,520     | 0                                      | 0                                    | 0          |
| 1972             | 0                        | 0                      | 0          | 99,668                                 | 143,877                                | 707,328                                    | 950,873     | 0                                      | 0                                    | 0          |
| 1973             | 0                        | 0                      | 0          | 120,880                                | 167,099                                | 782,167                                    | 1,070,146   | 0                                      | 0                                    | 0          |
| 1974             | 0                        | 0                      | 0          | 137,684                                | 182,339                                | 818,664                                    | 1,138,687   | 0                                      | 0                                    | 0          |
| 1975             | 0                        | 0                      | 0          | 146,204                                | 187,324                                | 804,123                                    | 1,137,651   | 0                                      | 0                                    | 0          |
| 1976             | 0                        | 0                      | 0          | 168,489                                | 208,652                                | 862,036                                    | 1,239,177   | 0                                      | 0                                    | 0          |
| 1977             | 0                        | 0                      | 0          | 172,931                                | 208,645                                | 827,062                                    | 1,208,638   | 0                                      | 0                                    | 0          |
| 1978             | 0                        | 0                      | 0          | 206,378                                | 243,231                                | 926,594                                    | 1,376,203   | 0                                      | 0                                    | 0          |
| 1979             | 0                        | 0                      | 0          | 237,771                                | 273,208                                | 1,005,955                                  | 1,516,934   | 0                                      | 0                                    | 0          |
| 1980             | 0                        | 18,325                 | 18,325     | 272,717                                | 307,426                                | 1,090,867                                  | 1,671,010   | 12,396                                 | 3,479                                | 15,875     |
| 1981             | 0                        | 25,440                 | 25,440     | 415,564                                | 469,768                                | 1,589,984                                  | 2,475,316   | 18,068                                 | 10,414                               | 28,482     |
| 1982             | 0                        | 34,917                 | 34,917     | 457,988                                | 519,053                                | 1,679,289                                  | 2,656,330   | 38,166                                 | 99,788                               | 137,954    |
| 1983             | 0                        | 12,035                 | 12,035     | 316,703                                | 359,775                                | 1,114,795                                  | 1,791,273   | 38,004                                 | 68,902                               | 106,906    |
| 1984             | 0                        | 22,453                 | 22,453     | 334,587                                | 380,914                                | 1,132,448                                  | 1,847,949   | 57,909                                 | 105,498                              | 163,407    |
| 1985             | 0                        | 22,001                 | 22,001     | 381,970                                | 435,728                                | 1,244,939                                  | 2,062,637   | 106,103                                | 192,937                              | 299,040    |
| 1986             | 35,358                   | 21,767                 | 57,125     | 423,378                                | 485,372                                | 1,330,615                                  | 2,239,365   | 151,206                                | 275,347                              | 426,553    |
| 1987             | 0                        | 22,984                 | 22,984     | 430,024                                | 493,786                                | 1,304,900                                  | 2,228,710   | 185,355                                | 336,664                              | 522,019    |
| 1988             | 88,878                   | 150,466                | 239,344    | 464,114                                | 533,731                                | 1,361,400                                  | 2,359,245   | 239,792                                | 436,607                              | 676,399    |
| 1989             | 102,688                  | 305,328                | 408,016    | 513,853                                | 591,760                                | 1,491,833                                  | 2,597,446   | 331,518                                | 602,402                              | 933,920    |
| 1990             | 112,723                  | 355,132                | 467,855    | 534,787                                | 616,676                                | 1,537,512                                  | 2,688,975   | 417,802                                | 760,166                              | 1,177,968  |
| 1991             | 129,296                  | 395,515                | 524,811    | 603,028                                | 681,067                                | 1,667,194                                  | 2,951,289   | 443,403                                | 806,745                              | 1,250,148  |
| 1992             | 158,879                  | 489,808                | 648,687    | 729,545                                | 808,579                                | 1,945,453                                  | 3,483,577   | 506,628                                | 921,780                              | 1,428,408  |
| 1993             | 172,457                  | 530,778                | 703,235    | 771,894                                | 840,958                                | 1,990,673                                  | 3,603,525   | 507,825                                | 923,957                              | 1,431,782  |
| 1994             | 177,824                  | 546,610                | 724,434    | 778,647                                | 817,579                                | 1,946,615                                  | 3,542,841   | 486,654                                | 885,437                              | 1,372,091  |
| 1995             | 203,738                  | 713,497                | 917,235    | 874,946                                | 874,946                                | 2,083,205                                  | 3,833,097   | 520,801                                | 947,567                              | 1,468,368  |
| 1996             | 213,506                  | 774,152                | 987,658    | 901,129                                | 860,168                                | 2,048,020                                  | 3,809,317   | 512,005                                | 931,562                              | 1,443,567  |
| 1997             | 250,558                  | 866,141                | 1,116,699  | 1,041,633                              | 951,056                                | 2,264,420                                  | 4,257,109   | 566,105                                | 1,029,994                            | 1,596,099  |
| 1998             | 266,952                  | 882,469                | 1,149,421  | 1,048,658                              | 957,470                                | 2,279,691                                  | 4,285,819   | 141,683                                | 888,760                              | 1,030,443  |
| 1999             | 290,688                  | 923,459                | 1,214,147  | 1,084,480                              | 990,178                                | 2,357,566                                  | 4,432,224   | 589,391                                | 1,072,362                            | 1,661,753  |
| 2000             | 390,936                  | 948,784                | 1,339,720  | 1,628,402                              | 1,005,778                              | 2,394,709                                  | 5,028,889   | 598,677                                | 1,089,257                            | 1,687,934  |
| 2001             | 496,412                  | 1,097,880              | 1,594,292  | 1,868,283                              | 1,005,998                              | 2,395,234                                  | 5,269,515   | 598,809                                | 1,089,496                            | 1,688,305  |
| 2002             | 512,928                  | 1,125,429              | 1,638,357  | 1,896,134                              | 1,020,996                              | 2,430,942                                  | 5,348,072   | 607,736                                | 1,105,738                            | 1,713,474  |
| 2003             | 511,059                  | 1,112,692              | 1,623,751  | 1,856,232                              | 999,510                                | 2,379,785                                  | 5,235,527   | 594,946                                | 1,082,469                            | 1,677,415  |
| 2004             | 569,615                  | 1,441,431              | 2,011,046  | 2,043,834                              | 1,094,911                              | 2,606,931                                  | 5,745,676   | 651,732                                | 1,185,788                            | 1,837,520  |
| 2005             | 573,730                  | 1,219,893              | 1,793,623  | 2,081,144                              | 1,084,212                              | 2,581,456                                  | 5,746,812   | 645,364                                | 1,174,201                            | 1,819,565  |
| 2006             | 606,342                  | 1,272,002              | 1,878,344  | 2,167,747                              | 1,129,330                              | 2,688,880                                  | 5,985,957   | 672,220                                | 1,223,064                            | 1,895,284  |
| 2007             | 595,224                  | 1,232,237              | 1,827,461  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2008             | 603,681                  | 1,233,538              | 1,837,219  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2009             | 612,137                  | 1,234,839              | 1,846,976  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2010             | 620,594                  | 1,236,140              | 1,856,734  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2011             | 629,051                  | 1,237,441              | 1,866,492  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2012             | 637,508                  | 1,238,742              | 1,876,250  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2013             | 644,663                  | 1,240,043              | 1,884,706  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2014             | 654,421                  | 1,241,344              | 1,895,765  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2015             | 671,985                  | 1,242,645              | 1,914,630  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2016             | 688,248                  | 1,242,645              | 1,930,893  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2017             | 704,511                  | 1,242,645              | 1,947,156  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2018             | 720,774                  | 1,242,645              | 1,963,419  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2019             | 737,037                  | 1,242,645              | 1,979,682  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2020             | 752,649                  | 1,242,645              | 1,995,294  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2021             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2022             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2023             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2024             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2025             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2026             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2027             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2028             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2029             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2030             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2031             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2032             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2033             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2034             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| 2035             | 755,251                  | 1,242,645              | 1,997,896  | 2,097,764                              | 1,092,870                              | 2,602,072                                  | 5,792,706   | 650,518                                | 1,183,578                            | 1,834,096  |
| TOTAL            | 26,465,815               | 51,321,257             | 77,787,072 | 88,248,290                             | 53,978,987                             | 134,941,521                                | 277,168,798 | 29,105,320                             | 53,574,143                           | 82,679,463 |

**TABLE B-21. Total Delta Water Charge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |                   |                       |                               |                                                   |               |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|-------------------|-----------------------|-------------------------------|---------------------------------------------------|---------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare<br>Lake Basin<br>Water Storage<br>District | Total         |
|                  |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Agri-<br>cultural |                       |                               |                                                   |               |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]              | [16]                  | [17]                          | [18]                                              | [19]          |
| 1964             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1965             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1966             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1967             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |
| 1968             | 40,695                               | 10,469                                        | 0                                             | 0                              | 165,522           | 3,177                 | 8,073                         | 98,608                                            | 326,544       |
| 1969             | 61,267                               | 3,281                                         | 0                                             | 0                              | 337,686           | 4,200                 | 8,805                         | 102,478                                           | 517,717       |
| 1970             | 104,405                              | 19,950                                        | 0                                             | 0                              | 964,915           | 8,645                 | 17,290                        | 228,095                                           | 1,343,300     |
| 1971             | 129,596                              | 21,720                                        | 0                                             | 0                              | 1,377,772         | 9,412                 | 20,272                        | 264,260                                           | 1,823,032     |
| 1972             | 160,756                              | 24,113                                        | 0                                             | 0                              | 2,175,835         | 11,253                | 43,131                        | 905,057                                           | 3,320,145     |
| 1973             | 195,541                              | 26,664                                        | 0                                             | 386,638                        | 2,373,167         | 13,333                | 27,553                        | 373,307                                           | 3,396,203     |
| 1974             | 224,202                              | 27,909                                        | 0                                             | 446,545                        | 2,781,595         | 13,954                | 29,770                        | 445,138                                           | 3,969,113     |
| 1975             | 329,688                              | 27,413                                        | 0                                             | 481,560                        | 3,041,048         | 14,620                | 33,702                        | 827,591                                           | 4,755,622     |
| 1976             | 414,245                              | 29,388                                        | 0                                             | 549,549                        | 3,931,785         | 15,673                | 35,966                        | 877,151                                           | 5,853,757     |
| 1977             | 312,532                              | 28,195                                        | 0                                             | 569,545                        | 4,071,218         | 15,977                | 40,289                        | 626,210                                           | 5,663,966     |
| 1978             | 342,208                              | 31,588                                        | 0                                             | 674,939                        | 4,950,959         | 20,006                | 41,065                        | 666,516                                           | 6,727,281     |
| 1979             | 395,523                              | 34,294                                        | 0                                             | 772,757                        | 5,901,986         | 22,863                | 45,725                        | 771,613                                           | 7,944,761     |
| 1980             | 555,341                              | 37,679                                        | 0                                             | 881,371                        | 6,984,026         | 27,272                | 70,658                        | 933,481                                           | 9,489,828     |
| 1981             | 740,789                              | 54,204                                        | 0                                             | 1,351,487                      | 11,140,730        | 41,556                | 77,692                        | 1,373,168                                         | 14,779,626    |
| 1982             | 782,396                              | 57,248                                        | 0                                             | 1,518,993                      | 12,703,436        | 47,707                | 85,873                        | 1,530,443                                         | 16,726,096    |
| 1983             | 543,462                              | 38,004                                        | 0                                             | 1,057,789                      | 9,141,315         | 35,471                | 58,273                        | 78,506                                            | 10,952,820    |
| 1984             | 580,379                              | 13,572                                        | 0                                             | 1,333,200                      | 9,741,623         | 39,893                | 61,770                        | 756,132                                           | 12,526,569    |
| 1985             | 667,740                              | 42,441                                        | 0                                             | 1,540,611                      | 11,403,920        | 48,100                | 69,320                        | 644,383                                           | 14,416,515    |
| 1986             | 745,447                              | 45,362                                        | 0                                             | 1,714,679                      | 12,925,113        | 55,946                | 77,115                        | 1,469,725                                         | 17,033,387    |
| 1987             | 762,180                              | 44,485                                        | 0                                             | 1,766,065                      | 13,410,817        | 59,314                | 77,108                        | 1,503,601                                         | 17,623,570    |
| 1988             | 827,669                              | 46,411                                        | 0                                             | 1,916,790                      | 14,707,763        | 61,882                | 83,540                        | 1,633,680                                         | 19,277,735    |
| 1989             | 921,621                              | 49,728                                        | 0                                             | 2,125,033                      | 16,312,361        | 66,304                | 92,825                        | 1,821,693                                         | 21,389,565    |
| 1990             | 964,288                              | 50,136                                        | 0                                             | 1,998,766                      | 17,276,959        | 66,848                | 95,259                        | 1,980,383                                         | 22,432,639    |
| 1991             | 1,023,374                            | 53,208                                        | 0                                             | 2,121,239                      | 18,335,590        | 70,944                | 101,096                       | 2,101,729                                         | 23,807,180    |
| 1992             | 1,169,299                            | 60,795                                        | 0                                             | 2,727,688                      | 20,646,125        | 81,061                | 115,511                       | 2,401,419                                         | 27,201,898    |
| 1993             | 1,172,060                            | 60,939                                        | 0                                             | 2,734,129                      | 20,694,874        | 81,252                | 115,784                       | 2,407,089                                         | 27,266,127    |
| 1994             | 1,123,198                            | 58,398                                        | 0                                             | 2,156,809                      | 20,295,455        | 77,865                | 110,957                       | 2,306,739                                         | 26,129,421    |
| 1995             | 1,202,009                            | 62,497                                        | 0                                             | 2,803,995                      | 21,223,694        | 83,328                | 118,743                       | 2,468,598                                         | 27,962,864    |
| 1996             | 534,818                              | 69,191                                        | 0                                             | 2,756,635                      | 19,492,814        | 81,921                | 102,219                       | 2,426,904                                         | 25,464,502    |
| 1997             | 1,208,521                            | 67,162                                        | 0                                             | 3,047,908                      | 22,148,973        | 90,576                | 129,072                       | 2,683,338                                         | 29,375,550    |
| 1998             | 1,216,671                            | 77,807                                        | 0                                             | 2,726,511                      | 22,070,376        | 91,188                | 129,942                       | 2,820,148                                         | 29,132,643    |
| 1999             | 1,258,233                            | 69,974                                        | 0                                             | 2,819,648                      | 22,824,299        | 94,303                | 134,381                       | 2,793,715                                         | 29,994,553    |
| 2000             | 1,278,056                            | 70,943                                        | 0                                             | 3,223,279                      | 21,220,235        | 95,788                | 136,498                       | 2,837,730                                         | 28,862,529    |
| 2001             | 1,278,336                            | 71,058                                        | 0                                             | 2,864,700                      | 21,110,372        | 95,809                | 136,528                       | 2,838,352                                         | 28,395,155    |
| 2002             | 1,393,975                            | 72,121                                        | 0                                             | 3,272,056                      | 21,060,431        | 97,237                | 138,564                       | 2,711,156                                         | 28,745,540    |
| 2003             | 1,364,640                            | 70,550                                        | 0                                             | 3,203,191                      | 20,617,243        | 95,192                | 135,648                       | 2,654,103                                         | 28,140,567    |
| 2004             | 1,494,892                            | 77,810                                        | 0                                             | 3,845,137                      | 22,248,916        | 104,277               | 148,595                       | 2,897,005                                         | 30,816,632    |
| 2005             | 1,480,284                            | 77,153                                        | 0                                             | 3,653,945                      | 22,127,832        | 232,331               | 147,143                       | 2,739,621                                         | 30,458,309    |
| 2006             | 1,541,885                            | 80,379                                        | 0                                             | 3,619,232                      | 23,235,419        | 242,000               | 153,266                       | 2,587,429                                         | 31,459,610    |
| 2007             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2008             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2009             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2010             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2011             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2012             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2013             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2014             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2015             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2016             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2017             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2018             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2019             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2020             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2021             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2022             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2023             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2024             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2025             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2026             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2027             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2028             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2029             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2030             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2031             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2032             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2033             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2034             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| 2035             | 1,492,106                            | 77,741                                        | 0                                             | 3,502,388                      | 22,485,282        | 242,123               | 148,318                       | 2,495,959                                         | 30,443,917    |
| TOTAL            | 73,813,295                           | 4,118,728                                     | 0                                             | 170,231,671                    | 1,159,247,377     | 9,440,045             | 7,556,243                     | 133,969,105                                       | 1,558,376,464 |

**TABLE B-21. Total Delta Water Charge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                    |                                          |                                                    |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline-<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [20]                                                | [21]                               | [22]                                     | [23]                                               | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                       | [29]                                                    |
| 1964             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1965             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1966             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1967             | 0                                                   | 0                                  | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1968             | 0                                                   | 13,060                             | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1969             | 0                                                   | 17,804                             | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1970             | 0                                                   | 37,905                             | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1971             | 0                                                   | 48,508                             | 0                                        | 0                                                  | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 160,756                                             | 74,751                             | 41,797                                   | 4,662                                              | 64,303                    | 1,367                                         | 67,518                    | 13,021                        | 369,739                                                    | 85,202                                                  |
| 1973             | 222,207                                             | 107,163                            | 51,552                                   | 7,279                                              | 79,994                    | 2,577                                         | 95,104                    | 26,131                        | 54,908                                                     | 14,338                                                  |
| 1974             | 279,090                                             | 143,266                            | 59,539                                   | 10,791                                             | 93,030                    | 3,721                                         | 121,869                   | 39,631                        | 465,150                                                    | 114,427                                                 |
| 1975             | 319,822                                             | 166,307                            | 63,964                                   | 13,250                                             | 100,515                   | 4,752                                         | 140,722                   | 50,989                        | 479,733                                                    | 119,705                                                 |
| 1976             | 431,018                                             | 207,673                            | 74,449                                   | 17,045                                             | 117,550                   | 6,269                                         | 174,366                   | 67,591                        | 538,772                                                    | 137,142                                                 |
| 1977             | 469,922                                             | 226,502                            | 79,144                                   | 19,079                                             | 122,180                   | 6,861                                         | 189,848                   | 77,255                        | 540,410                                                    | 139,097                                                 |
| 1978             | 600,180                                             | 274,819                            | 97,313                                   | 24,428                                             | 147,413                   | 9,687                                         | 236,913                   | 98,345                        | 631,768                                                    | 165,313                                                 |
| 1979             | 720,173                                             | 320,077                            | 115,033                                  | 29,836                                             | 171,470                   | 11,889                                        | 284,640                   | 117,285                       | 714,457                                                    | 189,760                                                 |
| 1980             | 857,818                                             | 376,845                            | 134,920                                  | 35,949                                             | 210,736                   | 14,256                                        | 337,177                   | 138,590                       | 811,952                                                    | 215,694                                                 |
| 1981             | 1,355,100                                           | 592,631                            | 218,713                                  | 57,637                                             | 343,292                   | 22,946                                        | 534,813                   | 211,396                       | 1,237,658                                                  | 330,644                                                 |
| 1982             | 1,551,434                                           | 664,082                            | 254,298                                  | 66,408                                             | 400,739                   | 26,335                                        | 313,057                   | 235,100                       | 1,341,923                                                  | 364,482                                                 |
| 1983             | 1,110,994                                           | 472,521                            | 184,283                                  | 47,759                                             | 291,367                   | 19,002                                        | 434,517                   | 163,925                       | 943,775                                                    | 252,096                                                 |
| 1984             | 450,405                                             | 509,602                            | 202,914                                  | 52,247                                             | 321,718                   | 20,719                                        | 472,282                   | 174,500                       | 1,003,760                                                  | 266,383                                                 |
| 1985             | 565,881                                             | 591,346                            | 240,344                                  | 61,540                                             | 381,970                   | 24,474                                        | 551,734                   | 200,605                       | 1,152,983                                                  | 308,405                                                 |
| 1986             | 635,066                                             | 659,259                            | 275,347                                  | 70,160                                             | 438,498                   | 27,822                                        | 625,994                   | 223,785                       | 1,285,253                                                  | 350,799                                                 |
| 1987             | 652,450                                             | 676,176                            | 288,131                                  | 73,104                                             | 467,095                   | 29,064                                        | 648,002                   | 228,654                       | 1,319,729                                                  | 364,779                                                 |
| 1988             | 711,641                                             | 742,582                            | 319,496                                  | 80,756                                             | 525,996                   | 32,024                                        | 711,641                   | 248,146                       | 1,438,752                                                  | 402,232                                                 |
| 1989             | 2,083,593                                           | 830,453                            | 362,565                                  | 91,333                                             | 605,021                   | 36,301                                        | 803,932                   | 276,155                       | 1,607,864                                                  | 454,180                                                 |
| 1990             | 2,207,667                                           | 869,029                            | 386,049                                  | 96,930                                             | 636,731                   | 38,438                                        | 848,974                   | 289,119                       | 1,696,277                                                  | 481,308                                                 |
| 1991             | 2,454,678                                           | 961,298                            | 409,704                                  | 102,869                                            | 675,746                   | 40,793                                        | 900,994                   | 306,835                       | 1,819,725                                                  | 510,800                                                 |
| 1992             | 2,804,695                                           | 1,098,371                          | 468,125                                  | 117,538                                            | 772,102                   | 46,610                                        | 1,029,469                 | 350,587                       | 2,079,203                                                  | 583,636                                                 |
| 1993             | 2,811,318                                           | 1,100,964                          | 469,230                                  | 117,815                                            | 773,925                   | 46,720                                        | 1,031,900                 | 351,415                       | 2,084,113                                                  | 585,014                                                 |
| 1994             | 2,694,116                                           | 1,055,065                          | 449,668                                  | 112,905                                            | 741,661                   | 44,772                                        | 988,880                   | 336,766                       | 1,997,227                                                  | 560,625                                                 |
| 1995             | 2,883,156                                           | 1,129,097                          | 481,220                                  | 120,826                                            | 793,702                   | 47,914                                        | 1,058,269                 | 360,394                       | 2,137,369                                                  | 599,963                                                 |
| 1996             | 2,834,460                                           | 1,110,027                          | 473,093                                  | 118,785                                            | 780,296                   | 47,104                                        | 1,040,394                 | 354,307                       | 2,101,269                                                  | 589,830                                                 |
| 1997             | 3,133,957                                           | 1,227,316                          | 523,081                                  | 131,336                                            | 862,744                   | 52,082                                        | 1,150,325                 | 391,745                       | 2,323,295                                                  | 652,153                                                 |
| 1998             | 3,155,093                                           | 1,235,593                          | 526,609                                  | 132,222                                            | 868,562                   | 52,433                                        | 1,128,006                 | 394,387                       | 2,338,963                                                  | 656,551                                                 |
| 1999             | 3,262,870                                           | 1,277,800                          | 544,598                                  | 136,739                                            | 898,233                   | 54,224                                        | 1,787,034                 | 407,859                       | 2,418,863                                                  | 678,979                                                 |
| 2000             | 3,314,278                                           | 2,279,763                          | 553,178                                  | 138,893                                            | 912,384                   | 55,078                                        | 1,815,190                 | 510,073                       | 2,456,972                                                  | 689,676                                                 |
| 2001             | 3,315,004                                           | 2,280,263                          | 553,299                                  | 138,924                                            | 912,584                   | 55,090                                        | 1,815,587                 | 510,185                       | 2,457,510                                                  | 689,827                                                 |
| 2002             | 3,437,351                                           | 2,314,256                          | 561,548                                  | 140,995                                            | 926,188                   | 55,912                                        | 1,842,654                 | 517,791                       | 2,494,146                                                  | 700,112                                                 |
| 2003             | 3,365,016                                           | 2,265,555                          | 549,731                                  | 138,028                                            | 906,698                   | 54,735                                        | 1,803,877                 | 506,894                       | 2,441,659                                                  | 685,379                                                 |
| 2004             | 3,686,201                                           | 2,481,798                          | 602,201                                  | 151,202                                            | 993,241                   | 59,960                                        | 1,976,053                 | 555,277                       | 2,674,711                                                  | 750,797                                                 |
| 2005             | 3,650,179                                           | 2,457,547                          | 596,316                                  | 149,725                                            | 983,535                   | 59,374                                        | 2,018,049                 | 549,850                       | 2,648,574                                                  | 743,459                                                 |
| 2006             | 3,802,076                                           | 2,559,814                          | 3,256,234                                | 155,955                                            | 1,344,441                 | 61,844                                        | 2,038,172                 | 572,731                       | 2,758,791                                                  | 774,398                                                 |
| 2007             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2008             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2009             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2010             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2011             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2012             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2013             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2014             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2015             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2016             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2017             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2018             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2019             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2020             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2021             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2022             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2023             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2024             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2025             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2026             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2027             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2028             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2029             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2030             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2031             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2032             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2033             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2034             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| 2035             | 3,679,329                                           | 2,477,172                          | 3,151,109                                | 150,920                                            | 1,301,036                 | 59,848                                        | 1,972,370                 | 554,241                       | 2,669,726                                                  | 749,397                                                 |
| TOTAL            | 172,690,206                                         | 107,294,876                        | 105,849,847                              | 7,341,630                                          | 57,395,704                | 2,908,741                                     | 88,816,686                | 25,930,308                    | 132,289,307                                                | 36,939,698                                              |

**TABLE B-21. Total Delta Water Charge for Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)       |                                                                    |                                                   |               | FEATHER RIVER AREA         |                       |                            |            | South Bay<br>Area<br>Future<br>Contractor | GRAND<br><br>TOTAL |
|------------------|--------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|---------------|----------------------------|-----------------------|----------------------------|------------|-------------------------------------------|--------------------|
|                  | San<br>Gorgonio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total         | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total      |                                           |                    |
|                  | [30]                                       | [31]                                                               | [32]                                              | [33]          | [34]                       | [35]                  | [36]                       | [37]       | [38]                                      | [39]               |
| 1964             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0          | 0                                         | 0                  |
| 1965             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0          | 0                                         | 0                  |
| 1966             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0          | 0                                         | 0                  |
| 1967             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0          | 0                                         | 241,150            |
| 1968             | 0                                          | 0                                                                  | 0                                                 | 13,060        | 0                          | 1,050                 | 875                        | 1,925      | 0                                         | 583,631            |
| 1969             | 0                                          | 0                                                                  | 0                                                 | 17,804        | 0                          | 1,225                 | 929                        | 2,154      | 0                                         | 827,578            |
| 1970             | 0                                          | 0                                                                  | 0                                                 | 37,905        | 0                          | 3,848                 | 1,995                      | 5,843      | 0                                         | 2,160,886          |
| 1971             | 0                                          | 0                                                                  | 0                                                 | 48,508        | 0                          | 4,546                 | 3,186                      | 7,732      | 0                                         | 2,696,792          |
| 1972             | 0                                          | 2,043,211                                                          | 0                                                 | 2,926,327     | 0                          | 4,929                 | 3,778                      | 8,707      | 0                                         | 7,206,052          |
| 1973             | 0                                          | 2,317,893                                                          | 0                                                 | 2,979,146     | 0                          | 7,059                 | 4,444                      | 11,503     | 0                                         | 7,456,998          |
| 1974             | 0                                          | 4,231,933                                                          | 0                                                 | 5,562,447     | 0                          | 8,336                 | 4,931                      | 13,267     | 0                                         | 10,683,514         |
| 1975             | 0                                          | 5,073,286                                                          | 0                                                 | 6,533,045     | 0                          | 9,416                 | 5,117                      | 14,533     | 0                                         | 12,440,851         |
| 1976             | 0                                          | 6,422,167                                                          | 0                                                 | 8,194,042     | 0                          | 7,004                 | 5,780                      | 12,784     | 0                                         | 15,299,760         |
| 1977             | 0                                          | 7,104,278                                                          | 0                                                 | 8,974,576     | 0                          | 16,917                | 5,827                      | 22,744     | 0                                         | 15,869,924         |
| 1978             | 0                                          | 9,016,389                                                          | 0                                                 | 11,302,568    | 0                          | 12,635                | 6,844                      | 19,479     | 0                                         | 19,425,531         |
| 1979             | 0                                          | 10,935,192                                                         | 0                                                 | 13,609,812    | 0                          | 16,575                | 7,773                      | 24,348     | 0                                         | 23,095,955         |
| 1980             | 84,294                                     | 13,102,796                                                         | 12,396                                            | 16,333,423    | 0                          | 19,834                | 8,801                      | 28,635     | 0                                         | 27,557,096         |
| 1981             | 140,930                                    | 20,910,099                                                         | 36,136                                            | 25,991,995    | 0                          | 21,682                | 13,370                     | 35,052     | 0                                         | 43,335,911         |
| 1982             | 167,929                                    | 23,998,560                                                         | 57,248                                            | 29,441,595    | 0                          | 16,117                | 14,694                     | 30,811     | 0                                         | 49,027,703         |
| 1983             | 124,148                                    | 17,203,307                                                         | 50,672                                            | 21,298,366    | 0                          | 15,202                | 10,134                     | 25,336     | 0                                         | 34,186,736         |
| 1984             | 138,982                                    | 18,766,458                                                         | 64,344                                            | 22,444,314    | 20,590                     | 15,442                | 10,681                     | 46,713     | 0                                         | 37,051,405         |
| 1985             | 166,935                                    | 22,050,974                                                         | 84,882                                            | 26,382,073    | 24,050                     | 16,976                | 12,166                     | 53,192     | 0                                         | 43,235,458         |
| 1986             | 195,056                                    | 25,089,658                                                         | 120,965                                           | 29,997,662    | 31,753                     | 18,145                | 13,457                     | 63,355     | 0                                         | 49,817,447         |
| 1987             | 207,598                                    | 26,095,043                                                         | 148,284                                           | 31,198,109    | 37,071                     | 17,794                | 13,642                     | 68,507     | 0                                         | 51,663,899         |
| 1988             | 233,604                                    | 28,781,238                                                         | 201,116                                           | 34,429,224    | 46,722                     | 18,565                | 14,852                     | 80,139     | 0                                         | 57,062,086         |
| 1989             | 268,530                                    | 32,505,376                                                         | 265,215                                           | 40,190,518    | 61,184                     | 19,891                | 16,576                     | 97,651     | 0                                         | 65,617,116         |
| 1990             | 289,119                                    | 33,616,369                                                         | 334,242                                           | 41,790,252    | 63,506                     | 20,055                | 17,381                     | 100,942    | 0                                         | 68,658,631         |
| 1991             | 306,835                                    | 35,676,185                                                         | 354,722                                           | 44,521,184    | 170,267                    | 21,283                | 19,155                     | 210,705    | 0                                         | 73,265,317         |
| 1992             | 350,587                                    | 40,763,329                                                         | 405,303                                           | 50,869,555    | 194,545                    | 24,318                | 22,697                     | 241,560    | 0                                         | 83,873,685         |
| 1993             | 351,415                                    | 40,859,579                                                         | 406,260                                           | 50,989,668    | 195,005                    | 24,376                | 23,563                     | 242,944    | 0                                         | 84,237,281         |
| 1994             | 336,766                                    | 39,156,173                                                         | 389,323                                           | 48,863,947    | 186,875                    | 23,360                | 23,360                     | 233,595    | 0                                         | 80,866,329         |
| 1995             | 360,394                                    | 41,903,674                                                         | 416,641                                           | 52,292,619    | 199,987                    | 24,999                | 26,040                     | 251,026    | 0                                         | 86,725,209         |
| 1996             | 0                                          | 41,195,923                                                         | 409,604                                           | 51,055,092    | 196,610                    | 24,576                | 26,624                     | 247,810    | 0                                         | 83,007,946         |
| 1997             | 0                                          | 45,548,810                                                         | 447,746                                           | 56,444,590    | 214,918                    | 27,173                | 30,223                     | 272,314    | 0                                         | 93,062,361         |
| 1998             | 0                                          | 45,855,992                                                         | 450,529                                           | 57,394,940    | 107,459                    | 27,356                | 31,537                     | 166,352    | 0                                         | 93,159,618         |
| 1999             | 47,152                                     | 47,422,430                                                         | 466,491                                           | 59,403,272    | 226,327                    | 28,291                | 33,820                     | 288,438    | 0                                         | 96,994,787         |
| 2000             | 71,841                                     | 48,169,576                                                         | 478,942                                           | 61,445,844    | 229,892                    | 69,207                | 35,708                     | 334,807    | 0                                         | 98,699,723         |
| 2001             | 95,809                                     | 48,180,135                                                         | 479,047                                           | 61,483,264    | 229,942                    | 83,833                | 37,187                     | 350,962    | 0                                         | 98,781,493         |
| 2002             | 97,237                                     | 48,898,394                                                         | 486,188                                           | 62,472,772    | 233,371                    | 85,083                | 39,185                     | 357,639    | 0                                         | 100,275,854        |
| 2003             | 118,989                                    | 47,869,376                                                         | 475,957                                           | 61,181,894    | 228,460                    | 83,293                | 39,743                     | 351,496    | 0                                         | 98,210,650         |
| 2004             | 156,416                                    | 52,438,420                                                         | 521,386                                           | 67,047,663    | 250,266                    | 92,048                | 0                          | 342,314    | 0                                         | 107,800,851        |
| 2005             | 167,795                                    | 51,925,988                                                         | 516,291                                           | 66,466,682    | 247,820                    | 31,300                | 0                          | 279,120    | 0                                         | 106,564,111        |
| 2006             | 188,222                                    | 51,397,939                                                         | 537,775                                           | 69,448,392    | 258,133                    | 32,607                | 50,485                     | 341,225    | 0                                         | 111,008,812        |
| 2007             | 195,155                                    | 49,738,600                                                         | 520,414                                           | 67,219,317    | 249,799                    | 723,749               | 18,703                     | 992,251    | 0                                         | 108,109,748        |
| 2008             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 52,472                     | 1,026,020  | 0                                         | 108,408,278        |
| 2009             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 54,290                     | 1,027,838  | 0                                         | 108,419,853        |
| 2010             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 56,108                     | 1,029,656  | 0                                         | 108,431,429        |
| 2011             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 58,186                     | 1,031,734  | 0                                         | 108,443,265        |
| 2012             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 60,264                     | 1,033,812  | 0                                         | 108,455,101        |
| 2013             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 62,602                     | 1,036,150  | 0                                         | 108,465,895        |
| 2014             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 64,940                     | 1,038,488  | 0                                         | 108,479,292        |
| 2015             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 67,538                     | 1,041,086  | 0                                         | 108,500,755        |
| 2016             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,519,615        |
| 2017             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,535,878        |
| 2018             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,552,141        |
| 2019             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,568,404        |
| 2020             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,584,016        |
| 2021             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2022             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2023             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2024             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2025             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2026             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2027             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2028             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2029             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2030             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2031             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2032             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2033             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2034             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| 2035             | 450,158                                    | 49,738,600                                                         | 520,414                                           | 67,474,320    | 249,799                    | 723,749               | 70,135                     | 1,043,683  | 0                                         | 108,596,618        |
| TOTAL            | 17,466,162                                 | 2,478,945,550                                                      | 23,709,711                                        | 3,257,578,426 | 10,898,924                 | 21,985,067            | 2,534,363                  | 35,418,354 | 0                                         | 5,289,008,577      |

**TABLE B-22. Water System Revenue Bond Surcharge for Each Contractor**

(in dollars)

Sheet 1 of 4

| Calendar<br>Year | NORTH BAY AREA           |                        |            | SOUTH BAY AREA                         |                                        |                                            |            | CENTRAL COASTAL AREA         |                            |            |
|------------------|--------------------------|------------------------|------------|----------------------------------------|----------------------------------------|--------------------------------------------|------------|------------------------------|----------------------------|------------|
|                  | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total      | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total      | San Luis<br>Obispo<br>County | Santa<br>Barbara<br>County | Total      |
|                  | [1]                      | [2]                    | [3]        | [4]                                    | [5]                                    | [6]                                        | [7]        | [8]                          | [9]                        | [10]       |
| 1971             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1972             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1973             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1974             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1975             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1976             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1977             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1978             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1979             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1980             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1981             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1982             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1983             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1984             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1985             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1986             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1987             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 1988             | 29,131                   | 40,505                 | 69,636     | 25,436                                 | 30,176                                 | 100,035                                    | 155,647    | 13,126                       | 24,392                     | 37,518     |
| 1989             | 48,804                   | 69,621                 | 118,425    | 43,343                                 | 51,681                                 | 170,303                                    | 265,327    | 26,828                       | 49,634                     | 76,462     |
| 1990             | 41,166                   | 60,482                 | 101,648    | 38,407                                 | 51,185                                 | 149,440                                    | 239,032    | 27,956                       | 51,795                     | 79,751     |
| 1991             | 63,389                   | 92,401                 | 155,790    | 62,470                                 | 81,991                                 | 235,712                                    | 380,173    | 44,887                       | 83,709                     | 128,596    |
| 1992             | 84,320                   | 126,227                | 210,547    | 89,247                                 | 115,208                                | 325,629                                    | 530,084    | 61,137                       | 113,925                    | 175,062    |
| 1993             | 90,152                   | 137,473                | 227,625    | 98,432                                 | 125,174                                | 347,457                                    | 571,063    | 67,725                       | 126,662                    | 194,387    |
| 1994             | 91,785                   | 141,222                | 233,007    | 102,021                                | 126,216                                | 352,415                                    | 580,652    | 81,420                       | 159,156                    | 240,576    |
| 1995             | 108,311                  | 181,787                | 290,098    | 126,000                                | 149,378                                | 416,955                                    | 692,333    | 131,674                      | 270,727                    | 402,401    |
| 1996             | 132,304                  | 232,343                | 364,647    | 158,514                                | 180,787                                | 505,043                                    | 844,344    | 242,654                      | 534,448                    | 777,102    |
| 1997             | 135,556                  | 237,492                | 373,048    | 171,263                                | 187,162                                | 522,127                                    | 880,552    | 141,810                      | 846,616                    | 988,426    |
| 1998             | 130,346                  | 228,366                | 358,712    | 164,682                                | 179,971                                | 502,065                                    | 846,718    | 136,361                      | 814,087                    | 950,448    |
| 1999             | 182,507                  | 316,416                | 498,923    | 227,072                                | 248,031                                | 691,830                                    | 1,166,933  | 188,835                      | 1,124,110                  | 1,312,945  |
| 2000             | 238,571                  | 364,418                | 602,989    | 260,766                                | 284,875                                | 794,730                                    | 1,340,371  | 218,359                      | 1,364,019                  | 1,582,378  |
| 2001             | 234,773                  | 358,616                | 593,389    | 561,965                                | 280,341                                | 782,078                                    | 1,624,384  | 214,883                      | 1,342,304                  | 1,557,187  |
| 2002             | 257,520                  | 391,851                | 649,371    | 610,230                                | 288,977                                | 806,174                                    | 1,705,381  | 221,503                      | 1,383,661                  | 1,605,164  |
| 2003             | 268,151                  | 408,027                | 676,178    | 635,422                                | 300,907                                | 839,455                                    | 1,775,784  | 230,647                      | 1,440,782                  | 1,671,429  |
| 2004             | 268,425                  | 408,444                | 676,869    | 636,070                                | 301,214                                | 840,312                                    | 1,777,596  | 230,883                      | 1,442,252                  | 1,673,135  |
| 2005             | 253,413                  | 385,602                | 639,015    | 610,756                                | 284,369                                | 793,318                                    | 1,688,443  | 217,970                      | 1,361,594                  | 1,579,564  |
| 2006             | 466,224                  | 709,422                | 1,175,646  | 1,123,655                              | 523,176                                | 1,459,528                                  | 3,106,359  | 401,017                      | 2,505,032                  | 2,906,049  |
| 2007             | 466,420                  | 709,718                | 1,176,138  | 1,124,125                              | 523,395                                | 1,460,139                                  | 3,107,659  | 401,185                      | 2,506,080                  | 2,907,265  |
| 2008             | 438,849                  | 667,766                | 1,106,615  | 1,057,676                              | 492,456                                | 1,373,828                                  | 2,923,960  | 377,470                      | 2,357,941                  | 2,735,411  |
| 2009             | 445,514                  | 677,908                | 1,123,422  | 1,073,741                              | 499,936                                | 1,394,695                                  | 2,968,372  | 383,204                      | 2,393,756                  | 2,776,960  |
| 2010             | 426,290                  | 648,656                | 1,074,946  | 1,027,408                              | 478,363                                | 1,334,513                                  | 2,840,284  | 366,668                      | 2,290,464                  | 2,657,132  |
| 2011             | 460,176                  | 700,218                | 1,160,394  | 1,109,078                              | 516,389                                | 1,440,595                                  | 3,066,062  | 395,815                      | 2,472,535                  | 2,868,350  |
| 2012             | 460,666                  | 700,964                | 1,161,630  | 1,110,259                              | 516,939                                | 1,442,129                                  | 3,069,327  | 396,237                      | 2,475,168                  | 2,871,405  |
| 2013             | 485,554                  | 738,834                | 1,224,388  | 1,170,242                              | 544,867                                | 1,520,041                                  | 3,235,150  | 417,644                      | 2,608,891                  | 3,026,535  |
| 2014             | 503,510                  | 766,157                | 1,269,667  | 1,213,518                              | 565,016                                | 1,576,253                                  | 3,354,787  | 433,088                      | 2,705,369                  | 3,138,457  |
| 2015             | 529,520                  | 805,734                | 1,335,254  | 1,276,205                              | 594,203                                | 1,657,677                                  | 3,528,085  | 455,460                      | 2,845,120                  | 3,300,580  |
| 2016             | 534,898                  | 813,918                | 1,348,816  | 1,289,167                              | 600,238                                | 1,674,514                                  | 3,563,919  | 460,086                      | 2,874,018                  | 3,334,104  |
| 2017             | 527,034                  | 801,952                | 1,328,986  | 1,270,214                              | 591,414                                | 1,649,896                                  | 3,511,524  | 453,322                      | 2,831,765                  | 3,285,087  |
| 2018             | 464,783                  | 707,229                | 1,172,012  | 1,120,182                              | 521,559                                | 1,455,017                                  | 3,096,758  | 399,778                      | 2,497,289                  | 2,897,067  |
| 2019             | 501,213                  | 762,661                | 1,263,874  | 1,207,981                              | 562,438                                | 1,569,061                                  | 3,339,480  | 431,112                      | 2,693,025                  | 3,124,137  |
| 2020             | 461,530                  | 702,279                | 1,163,809  | 1,112,341                              | 517,908                                | 1,444,833                                  | 3,075,082  | 396,980                      | 2,479,809                  | 2,876,789  |
| 2021             | 466,529                  | 709,884                | 1,176,413  | 1,124,388                              | 523,517                                | 1,460,481                                  | 3,108,386  | 401,279                      | 2,506,666                  | 2,907,945  |
| 2022             | 450,746                  | 685,869                | 1,136,615  | 1,086,350                              | 505,806                                | 1,411,073                                  | 3,003,229  | 387,704                      | 2,421,865                  | 2,809,569  |
| 2023             | 450,394                  | 685,333                | 1,135,727  | 1,085,501                              | 505,411                                | 1,409,971                                  | 3,000,883  | 387,401                      | 2,419,974                  | 2,807,375  |
| 2024             | 432,595                  | 658,251                | 1,090,846  | 1,042,605                              | 485,439                                | 1,354,252                                  | 2,882,296  | 372,092                      | 2,324,342                  | 2,696,434  |
| 2025             | 389,979                  | 593,405                | 983,384    | 939,895                                | 437,617                                | 1,220,841                                  | 2,598,353  | 335,436                      | 2,095,365                  | 2,430,801  |
| 2026             | 350,547                  | 533,404                | 883,951    | 844,860                                | 393,368                                | 1,097,398                                  | 2,335,626  | 301,519                      | 1,883,497                  | 2,185,016  |
| 2027             | 389,346                  | 592,440                | 981,786    | 938,368                                | 436,906                                | 1,218,857                                  | 2,594,131  | 334,891                      | 2,091,960                  | 2,426,851  |
| 2028             | 288,127                  | 438,423                | 726,550    | 694,419                                | 323,323                                | 901,990                                    | 1,919,732  | 247,829                      | 1,548,111                  | 1,795,940  |
| 2029             | 317,838                  | 483,632                | 801,470    | 766,026                                | 356,663                                | 995,000                                    | 2,117,689  | 273,384                      | 1,707,748                  | 1,981,132  |
| 2030             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 2031             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 2032             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 2033             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 2034             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| 2035             | 0                        | 0                      | 0          | 0                                      | 0                                      | 0                                          | 0          | 0                            | 0                          | 0          |
| TOTAL            | 13,366,906               | 20,475,350             | 33,842,256 | 30,430,300                             | 15,283,990                             | 42,697,660                                 | 88,411,950 | 11,709,259                   | 70,069,663                 | 81,778,922 |

**TABLE B-22. Water System Revenue Bond Surcharge for Each Contractor**

(in dollars)

Sheet 2 of 4

| Calendar<br>Year | SAN JOAQUIN VALLEY AREA              |                                               |                                               |                                |                   |                       |                               |                                                      |             |
|------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|-------------------|-----------------------|-------------------------------|------------------------------------------------------|-------------|
|                  | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare<br>Lake Basin<br>Water<br>Storage<br>District | Total       |
|                  |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Agri-<br>cultural |                       |                               |                                                      |             |
|                  | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]              | [16]                  | [17]                          | [18]                                                 | [19]        |
| 1971             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1972             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1973             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1974             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1975             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1976             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1977             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1978             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1979             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1980             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1981             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1982             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1983             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1984             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1985             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1986             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1987             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 1988             | 33,986                               | 1,657                                         | 0                                             | 67,288                         | 726,501           | 2,228                 | 2,851                         | 66,748                                               | 901,259     |
| 1989             | 59,273                               | 2,785                                         | 0                                             | 116,689                        | 1,251,452         | 3,733                 | 4,927                         | 116,736                                              | 1,555,595   |
| 1990             | 53,349                               | 2,419                                         | 0                                             | 287,811                        | 947,351           | 3,248                 | 4,367                         | 109,118                                              | 1,407,663   |
| 1991             | 82,252                               | 3,731                                         | 0                                             | 359,380                        | 1,564,983         | 5,035                 | 6,771                         | 168,217                                              | 2,190,369   |
| 1992             | 112,566                              | 5,127                                         | 0                                             | 452,691                        | 2,153,423         | 6,927                 | 9,285                         | 230,217                                              | 2,970,236   |
| 1993             | 119,670                              | 5,459                                         | 0                                             | 272,449                        | 2,491,672         | 7,381                 | 9,894                         | 244,813                                              | 3,151,338   |
| 1994             | 118,265                              | 5,379                                         | 0                                             | 244,671                        | 2,485,820         | 7,300                 | 9,766                         | 241,933                                              | 3,113,134   |
| 1995             | 139,227                              | 6,339                                         | 0                                             | 317,885                        | 2,894,182         | 8,598                 | 11,490                        | 284,798                                              | 3,662,519   |
| 1996             | 169,333                              | 7,703                                         | 0                                             | 354,341                        | 2,722,241         | 10,460                | 13,978                        | 346,366                                              | 3,624,422   |
| 1997             | 165,364                              | 7,980                                         | 0                                             | 366,285                        | 2,673,847         | 10,826                | 14,465                        | 357,986                                              | 3,596,753   |
| 1998             | 159,011                              | 7,672                                         | 0                                             | 352,211                        | 2,571,110         | 10,410                | 13,909                        | 344,232                                              | 3,458,555   |
| 1999             | 218,784                              | 10,373                                        | 0                                             | 485,897                        | 3,371,115         | 14,376                | 19,166                        | 476,017                                              | 4,595,728   |
| 2000             | 251,339                              | 11,735                                        | 0                                             | 557,296                        | 3,620,348         | 16,500                | 21,990                        | 546,406                                              | 5,025,614   |
| 2001             | 247,338                              | 11,547                                        | 0                                             | 548,424                        | 3,461,158         | 16,238                | 21,640                        | 537,707                                              | 4,844,052   |
| 2002             | 273,542                              | 11,904                                        | 0                                             | 565,321                        | 3,496,023         | 16,737                | 22,306                        | 521,659                                              | 4,907,492   |
| 2003             | 284,834                              | 12,395                                        | 0                                             | 588,659                        | 3,640,346         | 17,428                | 23,227                        | 543,193                                              | 5,110,082   |
| 2004             | 285,125                              | 12,408                                        | 0                                             | 589,259                        | 3,644,059         | 17,446                | 23,251                        | 543,748                                              | 5,115,296   |
| 2005             | 269,179                              | 11,714                                        | 0                                             | 556,305                        | 3,431,851         | 39,485                | 21,951                        | 488,483                                              | 4,818,968   |
| 2006             | 495,230                              | 21,551                                        | 0                                             | 1,023,478                      | 6,313,845         | 72,643                | 40,384                        | 814,866                                              | 8,781,997   |
| 2007             | 495,438                              | 21,560                                        | 0                                             | 1,023,907                      | 6,316,488         | 75,257                | 40,401                        | 812,623                                              | 8,785,674   |
| 2008             | 466,151                              | 20,285                                        | 0                                             | 963,382                        | 5,943,110         | 70,809                | 38,013                        | 764,588                                              | 8,266,338   |
| 2009             | 473,232                              | 20,594                                        | 0                                             | 978,014                        | 6,033,379         | 71,884                | 38,590                        | 776,201                                              | 8,391,894   |
| 2010             | 452,811                              | 19,705                                        | 0                                             | 935,812                        | 5,773,035         | 68,782                | 36,925                        | 742,707                                              | 8,029,777   |
| 2011             | 488,806                              | 21,271                                        | 0                                             | 1,010,201                      | 6,231,938         | 74,250                | 39,860                        | 801,746                                              | 8,668,072   |
| 2012             | 489,326                              | 21,294                                        | 0                                             | 1,011,277                      | 6,238,574         | 74,329                | 39,903                        | 802,600                                              | 8,677,303   |
| 2013             | 515,763                              | 22,444                                        | 0                                             | 1,065,912                      | 6,575,620         | 78,345                | 42,058                        | 845,961                                              | 9,146,103   |
| 2014             | 534,836                              | 23,274                                        | 0                                             | 1,105,330                      | 6,818,788         | 81,242                | 43,614                        | 877,245                                              | 9,484,329   |
| 2015             | 562,464                              | 24,477                                        | 0                                             | 1,162,428                      | 7,171,028         | 85,438                | 45,867                        | 922,561                                              | 9,974,263   |
| 2016             | 568,177                              | 24,725                                        | 0                                             | 1,174,234                      | 7,243,862         | 86,306                | 46,333                        | 931,931                                              | 10,075,568  |
| 2017             | 559,824                              | 24,362                                        | 0                                             | 1,156,971                      | 7,137,366         | 85,037                | 45,651                        | 918,230                                              | 9,927,441   |
| 2018             | 493,700                              | 21,484                                        | 0                                             | 1,020,315                      | 6,294,331         | 74,993                | 40,259                        | 809,773                                              | 8,754,855   |
| 2019             | 532,395                              | 23,168                                        | 0                                             | 1,100,286                      | 6,787,676         | 80,871                | 43,415                        | 873,242                                              | 9,441,053   |
| 2020             | 490,244                              | 21,334                                        | 0                                             | 1,013,173                      | 6,250,274         | 74,468                | 39,977                        | 804,105                                              | 8,693,575   |
| 2021             | 495,553                              | 21,565                                        | 0                                             | 1,024,146                      | 6,317,964         | 75,275                | 40,410                        | 812,813                                              | 8,787,726   |
| 2022             | 478,789                              | 20,835                                        | 0                                             | 989,499                        | 6,104,228         | 72,728                | 39,043                        | 785,316                                              | 8,490,438   |
| 2023             | 478,415                              | 20,819                                        | 0                                             | 988,726                        | 6,099,461         | 72,671                | 39,013                        | 784,702                                              | 8,483,807   |
| 2024             | 459,509                              | 19,996                                        | 0                                             | 949,654                        | 5,858,424         | 69,800                | 37,471                        | 753,693                                              | 8,148,547   |
| 2025             | 414,242                              | 18,026                                        | 0                                             | 856,101                        | 5,281,295         | 62,923                | 33,780                        | 679,444                                              | 7,345,811   |
| 2026             | 372,356                              | 16,204                                        | 0                                             | 769,538                        | 4,747,289         | 56,561                | 30,364                        | 610,744                                              | 6,603,056   |
| 2027             | 413,568                              | 17,997                                        | 0                                             | 854,710                        | 5,272,713         | 62,821                | 33,725                        | 678,340                                              | 7,333,874   |
| 2028             | 306,053                              | 13,318                                        | 0                                             | 632,510                        | 3,901,961         | 46,489                | 24,957                        | 501,992                                              | 5,427,280   |
| 2029             | 337,612                              | 14,692                                        | 0                                             | 697,733                        | 4,304,320         | 51,283                | 27,531                        | 553,756                                              | 5,986,927   |
| 2030             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 2031             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 2032             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 2033             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 2034             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| 2035             | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                    | 0           |
| TOTAL            | 14,416,931                           | 633,307                                       | 0                                             | 30,590,199                     | 192,164,451       | 1,939,561             | 1,182,778                     | 24,827,556                                           | 265,754,783 |



**TABLE B-22. Water System Revenue Bond Surcharge for Each Contractor**

(in dollars)

Sheet 3 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                    |                                          |                                                   |                           |                                               |                           |                               |                                                            |                                                         |
|------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|---------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |
|                  | [20]                                                | [21]                               | [22]                                     | [23]                                              | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                       | [29]                                                    |
| 1971             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1972             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1973             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1974             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1975             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1976             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1977             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1978             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1979             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1980             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1981             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1982             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1983             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1984             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1985             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1986             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1987             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 1988             | 64,266                                              | 57,111                             | 27,032                                   | 7,656                                             | 44,492                    | 2,154                                         | 55,996                    | 16,240                        | 151,182                                                    | 39,907                                                  |
| 1989             | 205,668                                             | 98,720                             | 46,993                                   | 13,263                                            | 78,104                    | 3,763                                         | 97,138                    | 27,981                        | 259,860                                                    | 69,104                                                  |
| 1990             | 185,010                                             | 87,808                             | 42,449                                   | 11,905                                            | 69,970                    | 3,385                                         | 87,327                    | 24,956                        | 231,650                                                    | 61,851                                                  |
| 1991             | 296,854                                             | 140,371                            | 65,947                                   | 18,548                                            | 108,704                   | 5,236                                         | 135,623                   | 38,641                        | 363,310                                                    | 96,172                                                  |
| 1992             | 402,015                                             | 234,421                            | 89,358                                   | 25,192                                            | 147,297                   | 7,053                                         | 183,813                   | 52,160                        | 491,537                                                    | 130,372                                                 |
| 1993             | 424,871                                             | 247,076                            | 93,981                                   | 26,566                                            | 154,919                   | 7,437                                         | 193,361                   | 55,045                        | 517,379                                                    | 137,298                                                 |
| 1994             | 424,023                                             | 247,222                            | 94,502                                   | 26,865                                            | 155,776                   | 7,431                                         | 194,191                   | 54,968                        | 525,394                                                    | 139,422                                                 |
| 1995             | 500,083                                             | 290,999                            | 111,729                                  | 31,823                                            | 184,169                   | 8,769                                         | 229,530                   | 64,852                        | 623,848                                                    | 165,594                                                 |
| 1996             | 606,387                                             | 353,131                            | 135,428                                  | 38,635                                            | 223,236                   | 10,640                                        | 278,178                   | 78,696                        | 760,333                                                    | 201,821                                                 |
| 1997             | 626,151                                             | 362,776                            | 139,565                                  | 39,802                                            | 230,058                   | 10,972                                        | 286,779                   | 81,146                        | 808,482                                                    | 207,472                                                 |
| 1998             | 602,091                                             | 348,838                            | 134,202                                  | 38,273                                            | 221,218                   | 10,550                                        | 275,761                   | 78,028                        | 777,418                                                    | 199,501                                                 |
| 1999             | 826,108                                             | 479,470                            | 184,524                                  | 52,650                                            | 304,166                   | 14,475                                        | 642,815                   | 107,060                       | 1,041,566                                                  | 277,200                                                 |
| 2000             | 940,325                                             | 1,150,965                          | 210,453                                  | 60,212                                            | 346,906                   | 16,486                                        | 736,157                   | 121,898                       | 1,191,538                                                  | 316,860                                                 |
| 2001             | 925,355                                             | 1,132,642                          | 207,102                                  | 59,254                                            | 341,384                   | 16,224                                        | 724,438                   | 135,581                       | 1,172,568                                                  | 311,816                                                 |
| 2002             | 974,814                                             | 1,167,539                          | 213,483                                  | 61,079                                            | 351,902                   | 16,724                                        | 746,758                   | 139,071                       | 1,208,696                                                  | 321,423                                                 |
| 2003             | 1,015,056                                           | 1,215,738                          | 222,296                                  | 63,601                                            | 366,429                   | 17,415                                        | 777,586                   | 144,812                       | 1,258,593                                                  | 334,692                                                 |
| 2004             | 1,016,092                                           | 1,216,978                          | 222,523                                  | 63,666                                            | 366,803                   | 17,432                                        | 778,379                   | 144,960                       | 1,259,877                                                  | 335,033                                                 |
| 2005             | 959,268                                             | 1,148,920                          | 210,078                                  | 60,105                                            | 346,290                   | 16,457                                        | 734,849                   | 136,853                       | 1,189,420                                                  | 316,297                                                 |
| 2006             | 1,764,840                                           | 2,113,756                          | 2,063,426                                | 110,581                                           | 852,281                   | 30,278                                        | 1,351,959                 | 251,779                       | 2,188,268                                                  | 581,916                                                 |
| 2007             | 1,765,578                                           | 2,114,641                          | 2,064,289                                | 110,627                                           | 852,637                   | 30,290                                        | 1,352,525                 | 251,885                       | 2,189,184                                                  | 582,159                                                 |
| 2008             | 1,661,212                                           | 1,989,641                          | 1,942,266                                | 104,087                                           | 802,237                   | 28,500                                        | 1,272,575                 | 236,995                       | 2,059,777                                                  | 547,747                                                 |
| 2009             | 1,686,444                                           | 2,019,862                          | 1,971,767                                | 105,668                                           | 814,422                   | 28,933                                        | 1,291,904                 | 240,595                       | 2,091,063                                                  | 556,067                                                 |
| 2010             | 1,613,673                                           | 1,932,703                          | 1,886,684                                | 101,109                                           | 779,279                   | 27,684                                        | 1,236,157                 | 230,213                       | 2,000,833                                                  | 532,072                                                 |
| 2011             | 1,741,945                                           | 2,086,335                          | 2,036,658                                | 109,146                                           | 841,224                   | 29,885                                        | 1,334,420                 | 248,513                       | 2,159,880                                                  | 574,367                                                 |
| 2012             | 1,743,800                                           | 2,088,557                          | 2,038,826                                | 109,262                                           | 842,120                   | 29,917                                        | 1,335,841                 | 248,778                       | 2,162,180                                                  | 574,978                                                 |
| 2013             | 1,838,010                                           | 2,201,394                          | 2,148,976                                | 115,165                                           | 887,616                   | 31,533                                        | 1,408,011                 | 262,218                       | 2,278,994                                                  | 606,042                                                 |
| 2014             | 1,905,981                                           | 2,282,802                          | 2,228,446                                | 119,424                                           | 920,441                   | 32,699                                        | 1,460,080                 | 271,915                       | 2,363,272                                                  | 628,454                                                 |
| 2015             | 2,004,438                                           | 2,400,725                          | 2,343,561                                | 125,593                                           | 967,988                   | 34,388                                        | 1,535,504                 | 285,961                       | 2,485,352                                                  | 660,918                                                 |
| 2016             | 2,024,797                                           | 2,425,108                          | 2,367,364                                | 126,869                                           | 977,820                   | 34,737                                        | 1,551,100                 | 288,866                       | 2,510,595                                                  | 667,631                                                 |
| 2017             | 1,995,029                                           | 2,389,456                          | 2,332,560                                | 125,004                                           | 963,444                   | 34,227                                        | 1,528,296                 | 284,619                       | 2,473,686                                                  | 657,816                                                 |
| 2018             | 1,759,385                                           | 2,107,223                          | 2,057,048                                | 110,239                                           | 849,646                   | 30,184                                        | 1,347,780                 | 251,001                       | 2,181,504                                                  | 580,117                                                 |
| 2019             | 1,897,284                                           | 2,272,386                          | 2,218,278                                | 118,879                                           | 916,241                   | 32,550                                        | 1,453,418                 | 270,674                       | 2,352,489                                                  | 625,586                                                 |
| 2020             | 1,747,070                                           | 2,092,474                          | 2,042,650                                | 109,467                                           | 843,699                   | 29,973                                        | 1,338,346                 | 249,244                       | 2,166,235                                                  | 576,057                                                 |
| 2021             | 1,765,991                                           | 2,115,135                          | 2,064,772                                | 110,653                                           | 852,837                   | 30,297                                        | 1,352,841                 | 251,943                       | 2,189,695                                                  | 582,295                                                 |
| 2022             | 1,706,248                                           | 2,043,581                          | 1,994,921                                | 106,909                                           | 823,985                   | 29,272                                        | 1,307,074                 | 243,420                       | 2,115,618                                                  | 562,596                                                 |
| 2023             | 1,704,915                                           | 2,041,985                          | 1,993,363                                | 106,826                                           | 823,342                   | 29,250                                        | 1,306,053                 | 243,230                       | 2,113,966                                                  | 562,157                                                 |
| 2024             | 1,637,541                                           | 1,961,290                          | 1,914,590                                | 102,604                                           | 790,805                   | 28,094                                        | 1,254,441                 | 233,618                       | 2,030,427                                                  | 539,942                                                 |
| 2025             | 1,476,222                                           | 1,768,078                          | 1,725,978                                | 92,496                                            | 712,901                   | 25,326                                        | 1,130,863                 | 210,604                       | 1,830,404                                                  | 486,751                                                 |
| 2026             | 1,326,957                                           | 1,589,303                          | 1,551,460                                | 83,144                                            | 640,818                   | 22,765                                        | 1,016,518                 | 189,309                       | 1,645,327                                                  | 437,534                                                 |
| 2027             | 1,473,823                                           | 1,765,205                          | 1,723,173                                | 92,346                                            | 711,742                   | 25,285                                        | 1,129,025                 | 210,262                       | 1,827,430                                                  | 485,960                                                 |
| 2028             | 1,090,672                                           | 1,306,303                          | 1,275,199                                | 68,339                                            | 526,710                   | 18,712                                        | 835,511                   | 155,600                       | 1,352,351                                                  | 359,624                                                 |
| 2029             | 1,203,139                                           | 1,441,005                          | 1,406,693                                | 75,386                                            | 581,023                   | 20,641                                        | 921,667                   | 171,645                       | 1,491,802                                                  | 396,708                                                 |
| 2030             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2031             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2032             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2033             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2034             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| 2035             | 0                                                   | 0                                  | 0                                        | 0                                                 | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       |
| TOTAL            | 51,529,431                                          | 58,529,673                         | 49,844,593                               | 3,238,918                                         | 23,617,081                | 888,023                                       | 38,210,588                | 7,285,835                     | 64,092,983                                                 | 17,027,329                                              |

**TABLE B-22. Water System Revenue Bond Surcharge for Each Contractor**

(in dollars)

Sheet 4 of 4

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA (continued)       |                                                                    |                                                   |               | FEATHER RIVER AREA         |                       |                            |           | South Bay<br>Area<br>Future<br>Contractor | GRAND<br>TOTAL |
|------------------|--------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|---------------|----------------------------|-----------------------|----------------------------|-----------|-------------------------------------------|----------------|
|                  | San<br>Gorgonio<br>Pass<br>Water<br>Agency | The Metropolitan<br>Water<br>District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total         | City<br>of<br>Yuba<br>City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total     |                                           |                |
|                  | [30]                                       | [31]                                                               | [32]                                              | [33]          | [34]                       | [35]                  | [36]                       | [37]      | [38]                                      | [39]           |
| 1971             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1972             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1973             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1974             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1975             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1976             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1977             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1978             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1979             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1980             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1981             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1982             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1983             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1984             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1985             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1986             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1987             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 1988             | 24,019                                     | 2,642,354                                                          | 18,118                                            | 3,150,527     | 1,336                      | 552                   | 853                        | 2,741     | 0                                         | 4,317,328      |
| 1989             | 42,040                                     | 4,587,641                                                          | 34,565                                            | 5,564,840     | 0                          | 918                   | 1,454                      | 2,372     | 0                                         | 7,583,021      |
| 1990             | 38,023                                     | 4,037,980                                                          | 34,994                                            | 4,917,308     | 2,535                      | 800                   | 1,283                      | 4,618     | 0                                         | 6,750,020      |
| 1991             | 59,122                                     | 6,259,893                                                          | 54,115                                            | 7,642,536     | 9,945                      | 1,243                 | 2,027                      | 13,215    | 0                                         | 10,510,679     |
| 1992             | 80,131                                     | 8,435,312                                                          | 72,892                                            | 10,351,553    | 13,671                     | 1,710                 | 2,806                      | 18,187    | 0                                         | 14,255,669     |
| 1993             | 84,371                                     | 8,885,273                                                          | 76,858                                            | 10,904,435    | 14,608                     | 1,827                 | 3,026                      | 19,461    | 0                                         | 15,068,309     |
| 1994             | 85,698                                     | 8,926,755                                                          | 76,794                                            | 10,959,041    | 14,409                     | 1,801                 | 3,070                      | 19,280    | 0                                         | 15,145,690     |
| 1995             | 101,792                                    | 10,539,433                                                         | 90,436                                            | 12,943,057    | 16,957                     | 2,119                 | 3,704                      | 22,780    | 0                                         | 18,013,188     |
| 1996             | 124,074                                    | 12,810,361                                                         | 109,783                                           | 15,730,703    | 20,640                     | 2,580                 | 4,621                      | 27,841    | 0                                         | 21,369,059     |
| 1997             | 28,259                                     | 13,168,230                                                         | 112,960                                           | 16,102,652    | 21,382                     | 2,674                 | 4,872                      | 28,928    | 0                                         | 21,970,359     |
| 1998             | 27,174                                     | 12,662,268                                                         | 108,619                                           | 15,483,941    | 20,562                     | 2,571                 | 4,685                      | 27,818    | 0                                         | 21,126,192     |
| 1999             | 53,545                                     | 17,454,651                                                         | 149,123                                           | 21,587,353    | 28,348                     | 3,543                 | 6,765                      | 38,656    | 0                                         | 29,200,538     |
| 2000             | 70,117                                     | 19,805,800                                                         | 168,259                                           | 25,135,976    | 32,271                     | 9,794                 | 7,996                      | 50,061    | 0                                         | 33,737,389     |
| 2001             | 69,001                                     | 19,490,499                                                         | 165,580                                           | 24,751,444    | 31,757                     | 9,638                 | 7,869                      | 49,264    | 0                                         | 33,419,720     |
| 2002             | 71,126                                     | 20,091,004                                                         | 170,682                                           | 25,534,301    | 32,736                     | 9,935                 | 8,112                      | 50,783    | 0                                         | 34,452,492     |
| 2003             | 74,063                                     | 20,920,403                                                         | 177,728                                           | 26,588,412    | 34,087                     | 10,345                | 8,446                      | 52,878    | 0                                         | 35,874,763     |
| 2004             | 74,138                                     | 20,941,743                                                         | 177,910                                           | 26,615,534    | 34,121                     | 10,356                | 8,456                      | 52,933    | 0                                         | 35,911,363     |
| 2005             | 69,992                                     | 19,770,593                                                         | 167,960                                           | 25,127,082    | 32,213                     | 9,776                 | 7,983                      | 49,972    | 0                                         | 33,903,044     |
| 2006             | 128,769                                    | 34,565,228                                                         | 309,009                                           | 46,312,090    | 59,265                     | 17,986                | 14,686                     | 91,937    | 0                                         | 62,374,078     |
| 2007             | 128,823                                    | 34,579,696                                                         | 309,139                                           | 46,331,473    | 59,290                     | 17,994                | 14,692                     | 91,976    | 0                                         | 62,400,185     |
| 2008             | 121,208                                    | 32,535,632                                                         | 290,865                                           | 43,592,742    | 55,785                     | 16,930                | 13,824                     | 86,539    | 0                                         | 58,711,605     |
| 2009             | 123,049                                    | 33,029,814                                                         | 295,283                                           | 44,254,871    | 56,633                     | 17,187                | 14,034                     | 87,854    | 0                                         | 59,603,373     |
| 2010             | 117,740                                    | 31,604,556                                                         | 282,541                                           | 42,345,244    | 54,189                     | 16,446                | 13,428                     | 84,063    | 0                                         | 57,031,446     |
| 2011             | 127,099                                    | 34,116,825                                                         | 305,001                                           | 45,711,298    | 58,497                     | 17,753                | 14,495                     | 90,745    | 0                                         | 61,564,921     |
| 2012             | 127,234                                    | 34,153,155                                                         | 305,325                                           | 45,759,973    | 58,559                     | 17,772                | 14,511                     | 90,842    | 0                                         | 61,630,480     |
| 2013             | 134,108                                    | 35,998,315                                                         | 321,821                                           | 48,232,203    | 61,723                     | 18,732                | 15,295                     | 95,750    | 0                                         | 64,960,129     |
| 2014             | 139,068                                    | 37,329,538                                                         | 333,722                                           | 50,015,842    | 64,005                     | 19,425                | 15,860                     | 99,290    | 0                                         | 67,362,372     |
| 2015             | 146,251                                    | 39,257,886                                                         | 350,961                                           | 52,599,526    | 67,311                     | 20,428                | 16,680                     | 104,419   | 0                                         | 70,842,127     |
| 2016             | 147,737                                    | 39,656,614                                                         | 354,526                                           | 53,133,764    | 67,995                     | 20,636                | 16,849                     | 105,480   | 0                                         | 71,561,651     |
| 2017             | 145,565                                    | 39,073,603                                                         | 349,314                                           | 52,352,619    | 66,995                     | 20,332                | 16,601                     | 103,928   | 0                                         | 70,509,585     |
| 2018             | 128,371                                    | 34,458,396                                                         | 308,054                                           | 46,168,948    | 59,082                     | 17,931                | 14,641                     | 91,654    | 0                                         | 62,181,294     |
| 2019             | 138,433                                    | 37,159,223                                                         | 332,199                                           | 49,787,640    | 63,713                     | 19,336                | 15,788                     | 98,837    | 0                                         | 67,055,021     |
| 2020             | 127,473                                    | 34,217,205                                                         | 305,898                                           | 45,845,791    | 58,669                     | 17,805                | 14,538                     | 91,012    | 0                                         | 61,746,058     |
| 2021             | 128,853                                    | 34,587,775                                                         | 309,211                                           | 46,342,298    | 59,304                     | 17,998                | 14,696                     | 91,998    | 0                                         | 62,414,766     |
| 2022             | 124,494                                    | 33,417,678                                                         | 298,750                                           | 44,774,546    | 57,298                     | 17,389                | 14,198                     | 88,885    | 0                                         | 60,303,282     |
| 2023             | 124,397                                    | 33,391,581                                                         | 298,517                                           | 44,739,582    | 57,253                     | 17,375                | 14,187                     | 88,815    | 0                                         | 60,256,189     |
| 2024             | 119,481                                    | 32,072,021                                                         | 286,720                                           | 42,971,574    | 54,991                     | 16,689                | 13,627                     | 85,307    | 0                                         | 57,875,004     |
| 2025             | 107,711                                    | 28,912,517                                                         | 258,475                                           | 38,738,326    | 49,573                     | 15,045                | 12,284                     | 76,902    | 0                                         | 52,173,577     |
| 2026             | 96,820                                     | 25,989,098                                                         | 232,340                                           | 34,821,393    | 44,561                     | 13,524                | 11,042                     | 69,127    | 0                                         | 46,898,169     |
| 2027             | 107,536                                    | 28,865,534                                                         | 258,055                                           | 38,675,376    | 49,493                     | 15,020                | 12,264                     | 76,777    | 0                                         | 52,088,795     |
| 2028             | 79,580                                     | 21,361,337                                                         | 190,968                                           | 28,620,906    | 36,626                     | 11,115                | 9,076                      | 56,817    | 0                                         | 38,547,225     |
| 2029             | 87,786                                     | 23,564,050                                                         | 210,660                                           | 31,572,205    | 40,403                     | 12,262                | 10,012                     | 62,677    | 0                                         | 42,522,100     |
| 2030             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 2031             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 2032             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 2033             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 2034             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| 2035             | 0                                          | 0                                                                  | 0                                                 | 0             | 0                          | 0                     | 0                          | 0         | 0                                         | 0              |
| TOTAL            | 4,134,271                                  | 1,025,327,470                                                      | 9,064,730                                         | 1,352,790,925 | 1,722,791                  | 495,292               | 425,336                    | 2,643,419 | 0                                         | 1,825,222,255  |

**TABLE B-23. Total Transportation and Delta Water Charge for Each Contractor**

| Calendar<br><br>Year | NORTH BAY AREA           |                        |             | SOUTH BAY AREA                         |                                        |                                            |               | CENTRAL COASTAL AREA                   |                                      |               |
|----------------------|--------------------------|------------------------|-------------|----------------------------------------|----------------------------------------|--------------------------------------------|---------------|----------------------------------------|--------------------------------------|---------------|
|                      | Napa<br>County<br>FC&WCD | Solano<br>County<br>WA | Total       | Alameda<br>County<br>FC&WCD,<br>Zone 7 | Alameda<br>County<br>Water<br>District | Santa Clara<br>Valley<br>Water<br>District | Total         | San Luis<br>Obispo<br>County<br>FC&WCD | Santa<br>Barbara<br>County<br>FC&WCD | Total         |
|                      | [1]                      | [2]                    | [3]         | [4]                                    | [5]                                    | [6]                                        | [7]           | [8]                                    | [9]                                  | [10]          |
| 1961                 | 0                        | 0                      | 0           | 0                                      | 0                                      | 0                                          | 0             | 0                                      | 0                                    | 0             |
| 1962                 | 0                        | 0                      | 0           | 11,750                                 | 43,787                                 | 21,132                                     | 76,669        | 0                                      | 0                                    | 0             |
| 1963                 | 0                        | 0                      | 0           | 199,673                                | 190,236                                | 447,594                                    | 837,503       | 0                                      | 0                                    | 0             |
| 1964                 | 0                        | 0                      | 0           | 263,210                                | 277,398                                | 621,174                                    | 1,161,782     | 6,694                                  | 21,659                               | 28,353        |
| 1965                 | 0                        | 0                      | 0           | 373,722                                | 404,239                                | 1,157,791                                  | 1,935,752     | 13,751                                 | 36,017                               | 49,768        |
| 1966                 | 18,057                   | 0                      | 18,057      | 419,362                                | 421,628                                | 1,412,600                                  | 2,253,590     | 26,516                                 | 61,329                               | 87,845        |
| 1967                 | 41,560                   | 0                      | 41,560      | 552,988                                | 548,387                                | 1,862,808                                  | 2,964,183     | 56,450                                 | 118,225                              | 174,675       |
| 1968                 | 128,588                  | 0                      | 128,588     | 682,759                                | 633,066                                | 2,178,036                                  | 3,493,861     | 115,927                                | 229,740                              | 345,667       |
| 1969                 | 254,662                  | 0                      | 254,662     | 817,355                                | 583,307                                | 2,298,276                                  | 3,698,938     | 185,117                                | 358,783                              | 543,900       |
| 1970                 | 277,493                  | 0                      | 277,493     | 903,666                                | 640,164                                | 2,787,493                                  | 4,331,323     | 200,110                                | 387,595                              | 587,705       |
| 1971                 | 227,419                  | 0                      | 227,419     | 845,130                                | 675,059                                | 2,806,542                                  | 4,326,731     | 202,372                                | 392,830                              | 595,202       |
| 1972                 | 224,922                  | 0                      | 224,922     | 929,119                                | 822,262                                | 3,027,272                                  | 4,778,653     | 209,015                                | 406,506                              | 615,521       |
| 1973                 | 221,035                  | 31,353                 | 252,388     | 915,555                                | 716,357                                | 3,120,308                                  | 4,752,220     | 206,516                                | 402,639                              | 609,155       |
| 1974                 | 240,442                  | 32,924                 | 273,366     | 956,141                                | 746,798                                | 3,324,543                                  | 5,027,482     | 208,503                                | 407,005                              | 615,508       |
| 1975                 | 237,400                  | 36,276                 | 273,676     | 1,014,516                              | 792,919                                | 3,213,566                                  | 5,021,001     | 225,853                                | 439,786                              | 665,639       |
| 1976                 | 271,231                  | 40,819                 | 312,050     | 1,127,567                              | 943,328                                | 3,362,062                                  | 5,432,957     | 228,933                                | 447,212                              | 676,145       |
| 1977                 | 293,565                  | 45,078                 | 338,643     | 1,096,181                              | 922,067                                | 3,302,979                                  | 5,321,227     | 238,656                                | 468,632                              | 707,288       |
| 1978                 | 273,807                  | 49,159                 | 322,966     | 1,184,963                              | 935,682                                | 3,712,097                                  | 5,832,742     | 245,286                                | 484,166                              | 729,452       |
| 1979                 | 289,415                  | 53,320                 | 342,735     | 1,281,524                              | 1,009,429                              | 3,819,046                                  | 6,109,999     | 243,064                                | 483,342                              | 726,406       |
| 1980                 | 310,779                  | 86,049                 | 396,827     | 1,434,484                              | 1,173,659                              | 4,118,852                                  | 6,726,725     | 282,208                                | 540,456                              | 822,664       |
| 1981                 | 347,710                  | 112,817                | 460,527     | 1,542,998                              | 1,348,984                              | 4,507,072                                  | 7,399,054     | 307,018                                | 596,566                              | 903,584       |
| 1982                 | 438,260                  | 141,798                | 580,058     | 1,623,310                              | 1,369,396                              | 4,940,901                                  | 7,933,607     | 328,168                                | 682,443                              | 1,010,611     |
| 1983                 | 354,703                  | 163,242                | 517,946     | 1,493,581                              | 1,259,988                              | 4,909,747                                  | 7,663,326     | 357,171                                | 701,981                              | 1,059,152     |
| 1984                 | 467,232                  | 246,623                | 713,856     | 1,803,603                              | 1,478,252                              | 6,869,751                                  | 10,151,606    | 409,482                                | 800,953                              | 1,210,435     |
| 1985                 | 735,929                  | 386,187                | 1,122,116   | 2,301,425                              | 2,224,952                              | 7,795,981                                  | 12,322,358    | 500,648                                | 969,826                              | 1,470,474     |
| 1986                 | 1,119,826                | 714,023                | 1,833,849   | 2,170,037                              | 2,013,959                              | 8,193,339                                  | 12,377,335    | 536,703                                | 1,037,924                            | 1,574,627     |
| 1987                 | 1,773,371                | 1,581,733              | 3,355,104   | 2,666,542                              | 2,505,517                              | 7,979,748                                  | 13,151,807    | 570,595                                | 1,148,862                            | 1,719,457     |
| 1988                 | 2,349,015                | 2,524,068              | 4,873,083   | 2,727,700                              | 2,774,284                              | 7,829,776                                  | 13,331,760    | 673,019                                | 1,439,487                            | 2,112,506     |
| 1989                 | 2,548,170                | 3,700,620              | 6,248,790   | 2,711,651                              | 2,515,323                              | 7,578,335                                  | 12,805,309    | 772,517                                | 1,814,603                            | 2,587,120     |
| 1990                 | 2,899,410                | 3,848,146              | 6,747,556   | 3,146,946                              | 2,929,625                              | 8,354,874                                  | 14,431,445    | 933,311                                | 2,046,195                            | 2,979,506     |
| 1991                 | 2,940,701                | 4,169,425              | 7,110,126   | 2,418,874                              | 2,384,093                              | 6,430,306                                  | 11,233,273    | 979,649                                | 2,366,642                            | 3,346,291     |
| 1992                 | 2,797,105                | 4,144,190              | 6,941,295   | 2,893,339                              | 2,926,955                              | 7,656,397                                  | 13,476,691    | 1,118,743                              | 2,526,627                            | 3,645,370     |
| 1993                 | 2,854,875                | 4,171,687              | 7,026,562   | 3,750,112                              | 2,977,192                              | 8,849,446                                  | 15,576,750    | 1,185,596                              | 2,725,769                            | 3,911,365     |
| 1994                 | 2,987,315                | 4,224,488              | 7,211,803   | 3,787,188                              | 3,586,085                              | 9,612,974                                  | 16,986,247    | 1,335,886                              | 3,517,571                            | 4,853,457     |
| 1995                 | 2,960,697                | 4,404,411              | 7,365,108   | 4,035,839                              | 3,313,187                              | 8,393,270                                  | 15,742,296    | 1,647,663                              | 6,194,234                            | 7,841,897     |
| 1996                 | 3,044,394                | 4,897,402              | 7,941,796   | 3,643,676                              | 3,178,232                              | 9,227,992                                  | 16,049,900    | 2,591,704                              | 15,229,004                           | 17,820,708    |
| 1997                 | 3,027,378                | 4,733,999              | 7,761,378   | 3,870,184                              | 3,145,383                              | 9,337,452                                  | 16,353,019    | 3,002,323                              | 23,731,433                           | 26,733,756    |
| 1998                 | 2,935,964                | 4,589,687              | 7,525,651   | 3,479,657                              | 3,204,049                              | 9,084,654                                  | 15,768,360    | 3,255,725                              | 28,306,094                           | 31,561,819    |
| 1999                 | 3,153,293                | 5,067,870              | 8,221,163   | 4,165,792                              | 3,670,900                              | 11,379,341                                 | 19,216,033    | 3,804,992                              | 29,596,993                           | 33,401,985    |
| 2000                 | 3,461,761                | 5,620,694              | 9,082,455   | 5,803,535                              | 3,595,950                              | 10,225,069                                 | 19,624,554    | 3,778,512                              | 30,647,422                           | 34,425,934    |
| 2001                 | 4,077,160                | 6,366,877              | 10,444,037  | 7,651,552                              | 4,082,226                              | 12,197,421                                 | 23,931,199    | 4,325,809                              | 32,645,829                           | 36,971,638    |
| 2002                 | 4,321,849                | 6,558,581              | 10,880,431  | 7,516,120                              | 4,075,428                              | 13,130,226                                 | 24,721,774    | 4,052,063                              | 32,381,776                           | 36,433,839    |
| 2003                 | 4,439,385                | 6,903,912              | 11,343,297  | 7,318,008                              | 3,793,122                              | 11,898,495                                 | 23,009,625    | 4,127,842                              | 32,669,250                           | 36,797,092    |
| 2004                 | 4,978,166                | 7,445,546              | 12,423,712  | 8,339,005                              | 4,188,611                              | 11,596,368                                 | 24,123,984    | 4,202,089                              | 33,271,428                           | 37,473,517    |
| 2005                 | 4,342,639                | 6,733,122              | 11,075,761  | 8,547,630                              | 4,429,619                              | 12,563,864                                 | 25,541,113    | 4,326,481                              | 33,535,756                           | 37,862,237    |
| 2006                 | 5,404,676                | 8,054,544              | 13,459,220  | 9,985,053                              | 5,411,710                              | 14,030,529                                 | 29,427,292    | 6,540,850                              | 35,367,522                           | 41,908,372    |
| 2007                 | 5,848,062                | 8,393,468              | 14,241,530  | 11,174,098                             | 5,799,103                              | 14,843,893                                 | 31,817,094    | 6,429,200                              | 39,158,912                           | 43,988,112    |
| 2008                 | 6,421,045                | 8,727,866              | 15,148,911  | 12,565,807                             | 6,251,266                              | 16,109,489                                 | 34,926,562    | 7,310,198                              | 38,062,792                           | 45,372,990    |
| 2009                 | 5,812,790                | 6,934,437              | 12,747,227  | 12,596,124                             | 6,355,237                              | 16,054,638                                 | 35,005,999    | 7,595,729                              | 37,371,329                           | 44,967,058    |
| 2010                 | 5,844,232                | 6,939,072              | 12,783,304  | 12,887,374                             | 6,506,005                              | 16,373,494                                 | 35,766,873    | 7,765,319                              | 37,632,168                           | 45,397,487    |
| 2011                 | 5,843,122                | 7,010,531              | 12,853,653  | 12,138,444                             | 6,079,057                              | 16,924,630                                 | 35,142,131    | 7,488,932                              | 37,288,946                           | 44,777,878    |
| 2012                 | 5,887,622                | 7,038,216              | 12,925,838  | 12,200,607                             | 6,108,434                              | 17,008,116                                 | 35,317,157    | 7,588,203                              | 37,498,706                           | 45,086,909    |
| 2013                 | 5,907,386                | 7,063,465              | 12,970,851  | 12,133,857                             | 6,058,138                              | 16,772,208                                 | 34,964,203    | 7,612,043                              | 37,637,891                           | 45,249,934    |
| 2014                 | 5,911,525                | 7,062,771              | 12,974,296  | 11,770,110                             | 5,843,094                              | 16,232,478                                 | 33,845,682    | 7,466,056                              | 37,431,849                           | 44,897,905    |
| 2015                 | 5,981,481                | 7,105,866              | 13,087,347  | 11,848,887                             | 5,830,991                              | 16,058,055                                 | 33,737,933    | 7,514,310                              | 37,618,232                           | 45,132,542    |
| 2016                 | 6,012,570                | 7,118,993              | 13,131,563  | 11,991,694                             | 5,894,010                              | 16,110,494                                 | 33,996,198    | 7,579,280                              | 37,752,984                           | 45,332,264    |
| 2017                 | 6,006,628                | 7,095,729              | 13,102,357  | 11,717,336                             | 5,761,904                              | 15,744,152                                 | 33,223,392    | 7,449,559                              | 37,485,343                           | 44,934,902    |
| 2018                 | 5,913,080                | 7,018,613              | 12,931,693  | 11,490,492                             | 5,671,612                              | 15,482,437                                 | 32,644,541    | 7,410,366                              | 37,175,191                           | 44,585,557    |
| 2019                 | 5,966,085                | 7,094,121              | 13,060,206  | 11,696,734                             | 5,790,910                              | 15,778,434                                 | 33,266,078    | 7,550,971                              | 37,565,909                           | 45,116,880    |
| 2020                 | 5,910,229                | 6,987,342              | 12,897,571  | 11,277,689                             | 5,588,650                              | 15,244,973                                 | 32,111,312    | 7,295,188                              | 36,949,385                           | 44,244,573    |
| 2021                 | 5,922,501                | 6,997,650              | 12,920,151  | 11,274,666                             | 5,586,785                              | 15,245,045                                 | 32,106,496    | 7,298,728                              | 36,974,344                           | 44,273,072    |
| 2022                 | 5,872,909                | 6,945,831              | 12,818,740  | 11,066,065                             | 5,483,946                              | 14,972,246                                 | 31,522,257    | 7,158,285                              | 36,657,074                           | 43,815,359    |
| 2023                 | 5,872,820                | 6,912,267              | 12,785,087  | 11,141,832                             | 5,523,718                              | 15,065,579                                 | 31,731,129    | 7,188,285                              | 36,708,000                           | 43,896,285    |
| 2024                 | 5,886,147                | 6,913,931              | 12,800,078  | 11,293,388                             | 5,600,364                              | 15,258,851                                 | 32,152,603    | 7,311,225                              | 36,863,815                           | 44,175,040    |
| 2025                 | 5,824,495                | 6,838,267              | 12,662,762  | 10,971,590                             | 5,439,695                              | 14,850,625                                 | 31,261,910    | 7,184,872                              | 36,472,290                           | 43,657,162    |
| 2026                 | 5,785,473                | 6,777,366              | 12,562,839  | 11,123,044                             | 5,522,942                              | 15,033,756                                 | 31,679,742    | 7,243,665                              | 36,424,732                           | 43,668,397    |
| 2027                 | 5,808,405                | 6,823,063              | 12,631,468  | 11,057,118                             | 5,485,134                              | 14,952,781                                 | 31,495,033    | 7,192,453                              | 36,480,294                           | 43,672,747    |
| 2028                 | 5,707,576                | 6,666,424              | 12,374,000  | 10,804,578                             | 5,367,961                              | 14,620,004                                 | 30,792,543    | 7,124,852                              | 35,963,791                           | 43,088,643    |
| 2029                 | 5,721,333                | 6,697,599              | 12,418,932  | 10,822,110                             | 5,372,666                              | 14,645,866                                 | 30,840,642    | 7,093,626                              | 36,018,603                           | 43,112,229    |
| 2030                 | 5,398,769                | 6,203,443              | 11,602,212  | 10,112,204                             | 5,044,255                              | 13,722,097                                 | 28,878,551    | 6,853,752                              | 34,366,134                           | 41,219,886    |
| 2031                 | 5,372,110                | 6,175,000              | 11,547,110  | 9,967,944                              | 4,970,215                              | 13,538,115                                 | 28,476,274    | 6,776,258                              | 34,215,943                           | 40,992,201    |
| 2032                 | 5,375,357                | 6,165,718              | 11,541,075  | 10,102,077                             | 5,037,758                              | 13,709,070                                 | 28,848,905    | 6,862,299                              | 34,371,981                           | 41,234,280    |
| 2033                 | 5,396,449                | 6,165,370              | 11,561,819  | 10,320,059                             | 5,145,651                              | 13,992,958                                 | 29,458,668    | 7,051,766                              | 34,722,759                           | 41,774,525    |
| 2034                 | 5,284,035                | 6,054,952              | 11,338,987  | 10,122,661                             | 5,046,860                              | 13,736,528                                 | 28,906,049    | 6,899,006                              | 34,442,568                           | 41,341,574    |
| 2035                 | 5,113,096                | 5,887,668              | 11,000,764  | 10,107,780                             | 5,043,883                              | 13,706,989                                 | 28,858,652    | 6,859,510                              | 34,365,642                           | 41,225,152    |
| TOTAL                | 241,678,691              | 301,695,710            | 543,374,401 | 452,179,392                            | 254,073,043                            | 722,955,230                                | 1,429,207,665 | 267,113,466                            | 1,423,315,719                        | 1,690,429,185 |

**TABLE B-23. Total Transportation and Delta Water Charge for Each Contractor**

| (in dollars)            |                                      |                                               |                                               |                                |                   |                       |                               |                                                   |               | Sheet 2 of 4 |
|-------------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------|-------------------|-----------------------|-------------------------------|---------------------------------------------------|---------------|--------------|
| SAN JOAQUIN VALLEY AREA |                                      |                                               |                                               |                                |                   |                       |                               |                                                   |               |              |
| Calendar<br><br>Year    | Dudley<br>Ridge<br>Water<br>District | Empire<br>West Side<br>Irrigation<br>District | Future<br>Contractor<br>San Joaquin<br>Valley | Kern County Water Agency       |                   | County<br>of<br>Kings | Oak Flat<br>Water<br>District | Tulare Lake<br>Basin<br>Water Storage<br>District | Total         |              |
|                         |                                      |                                               |                                               | Municipal<br>and<br>Industrial | Agri-<br>cultural |                       |                               |                                                   |               |              |
|                         | [11]                                 | [12]                                          | [13]                                          | [14]                           | [15]              | [16]                  | [17]                          | [18]                                              | [19]          |              |
| 1961                    | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |              |
| 1962                    | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |              |
| 1963                    | 0                                    | 0                                             | 0                                             | 0                              | 0                 | 0                     | 0                             | 0                                                 | 0             |              |
| 1964                    | 0                                    | 0                                             | 2,724                                         | 0                              | 0                 | 0                     | 0                             | 0                                                 | 2,724         |              |
| 1965                    | 0                                    | 0                                             | 6,027                                         | 73,543                         | 0                 | 0                     | 0                             | 0                                                 | 79,570        |              |
| 1966                    | 0                                    | 0                                             | 12,035                                        | 137,285                        | 0                 | 0                     | 0                             | 0                                                 | 149,320       |              |
| 1967                    | 0                                    | 0                                             | 26,249                                        | 267,525                        | 0                 | 0                     | 0                             | 0                                                 | 293,774       |              |
| 1968                    | 224,863                              | 19,355                                        | 54,573                                        | 445,315                        | 1,707,907         | 16,944                | 19,621                        | 307,144                                           | 2,795,722     |              |
| 1969                    | 241,040                              | 10,858                                        | 87,557                                        | 524,952                        | 2,725,665         | 16,821                | 19,353                        | 458,146                                           | 4,084,393     |              |
| 1970                    | 306,153                              | 34,294                                        | 94,656                                        | 573,846                        | 3,874,807         | 21,431                | 30,373                        | 520,792                                           | 5,456,353     |              |
| 1971                    | 327,556                              | 37,022                                        | 95,676                                        | 605,729                        | 5,194,583         | 27,171                | 34,653                        | 712,014                                           | 7,034,405     |              |
| 1972                    | 381,217                              | 40,283                                        | 98,769                                        | 631,452                        | 7,160,048         | 26,469                | 63,760                        | 1,983,416                                         | 10,385,415    |              |
| 1973                    | 398,531                              | 38,905                                        | 97,531                                        | 1,025,724                      | 7,288,944         | 28,813                | 39,235                        | 781,297                                           | 9,698,980     |              |
| 1974                    | 506,825                              | 40,119                                        | 98,440                                        | 1,144,626                      | 7,998,836         | 29,540                | 42,529                        | 1,041,211                                         | 10,902,126    |              |
| 1975                    | 679,255                              | 40,568                                        | 106,683                                       | 1,197,000                      | 9,378,180         | 31,236                | 48,144                        | 1,554,104                                         | 13,035,170    |              |
| 1976                    | 718,929                              | 43,089                                        | 108,064                                       | 1,323,673                      | 10,621,999        | 32,663                | 52,075                        | 1,440,444                                         | 14,340,936    |              |
| 1977                    | 579,202                              | 39,006                                        | 112,534                                       | 1,367,237                      | 10,935,227        | 34,430                | 54,184                        | 1,136,448                                         | 14,258,267    |              |
| 1978                    | 697,714                              | 36,029                                        | 115,500                                       | 1,565,715                      | 13,267,022        | 38,924                | 58,998                        | 1,170,331                                         | 16,950,231    |              |
| 1979                    | 780,939                              | 47,842                                        | 114,232                                       | 1,668,782                      | 15,342,234        | 43,061                | 70,589                        | 1,724,129                                         | 19,791,809    |              |
| 1980                    | 961,857                              | 49,577                                        | 125,929                                       | 1,770,094                      | 16,980,862        | 48,017                | 94,886                        | 1,670,360                                         | 21,701,583    |              |
| 1981                    | 1,210,796                            | 83,943                                        | 134,147                                       | 2,430,626                      | 22,581,643        | 66,491                | 100,598                       | 2,281,316                                         | 28,889,561    |              |
| 1982                    | 1,246,912                            | 70,137                                        | 135,036                                       | 2,523,486                      | 24,975,869        | 70,658                | 108,243                       | 2,275,922                                         | 31,406,263    |              |
| 1983                    | 1,181,152                            | 52,487                                        | 149,180                                       | 2,084,871                      | 24,620,691        | 75,438                | 87,400                        | 506,508                                           | 28,757,728    |              |
| 1984                    | 1,490,607                            | 28,469                                        | 164,483                                       | 3,396,201                      | 33,347,123        | 94,317                | 121,380                       | 1,539,693                                         | 40,182,273    |              |
| 1985                    | 1,766,381                            | 129,899                                       | 184,883                                       | 3,891,023                      | 39,315,432        | 117,579               | 139,459                       | 2,814,739                                         | 48,359,395    |              |
| 1986                    | 2,008,191                            | 79,276                                        | 180,423                                       | 4,079,656                      | 43,415,702        | 136,711               | 153,113                       | 3,651,450                                         | 53,704,522    |              |
| 1987                    | 1,883,365                            | 95,194                                        | 179,850                                       | 4,570,657                      | 42,685,043        | 137,328               | 151,352                       | 3,744,261                                         | 53,447,050    |              |
| 1988                    | 1,968,313                            | 109,572                                       | 193,712                                       | 4,734,317                      | 44,620,432        | 138,274               | 146,509                       | 3,898,655                                         | 55,809,784    |              |
| 1989                    | 2,122,936                            | 101,699                                       | 187,891                                       | 4,677,170                      | 46,811,366        | 137,082               | 166,333                       | 4,379,959                                         | 58,584,436    |              |
| 1990                    | 1,882,977                            | 86,903                                        | 221,368                                       | 4,827,701                      | 45,586,813        | 121,149               | 148,635                       | 3,957,759                                         | 56,833,305    |              |
| 1991                    | 1,687,849                            | 80,192                                        | 220,258                                       | 4,535,666                      | 37,462,468        | 103,904               | 134,645                       | 3,498,769                                         | 47,723,752    |              |
| 1992                    | 2,233,468                            | 105,011                                       | 241,431                                       | 5,549,954                      | 48,659,564        | 143,779               | 175,628                       | 4,537,599                                         | 61,646,434    |              |
| 1993                    | 2,455,623                            | 120,014                                       | 264,933                                       | 5,805,843                      | 54,560,731        | 161,518               | 195,193                       | 5,291,453                                         | 68,855,308    |              |
| 1994                    | 2,260,461                            | 107,520                                       | 306,333                                       | 5,210,092                      | 52,031,343        | 145,621               | 178,005                       | 4,664,186                                         | 64,903,561    |              |
| 1995                    | 2,856,907                            | 115,436                                       | 304,270                                       | 6,621,268                      | 60,491,427        | 180,796               | 210,338                       | 5,522,987                                         | 76,303,430    |              |
| 1996                    | 2,079,003                            | 125,126                                       | 389,175                                       | 6,670,890                      | 58,901,328        | 178,468               | 189,950                       | 7,088,752                                         | 75,622,692    |              |
| 1997                    | 2,790,580                            | 100,531                                       | 276,653                                       | 6,521,729                      | 57,769,465        | 138,112               | 212,150                       | 4,710,883                                         | 72,520,103    |              |
| 1998                    | 2,645,355                            | 119,852                                       | 381,853                                       | 5,812,611                      | 54,360,965        | 143,432               | 203,908                       | 4,965,302                                         | 68,633,278    |              |
| 1999                    | 2,697,215                            | 134,246                                       | 366,504                                       | 6,357,194                      | 57,227,682        | 181,837               | 215,880                       | 7,274,247                                         | 74,454,804    |              |
| 2000                    | 2,622,853                            | 120,600                                       | 303,259                                       | 6,363,533                      | 51,446,943        | 174,146               | 213,127                       | 6,167,186                                         | 67,411,647    |              |
| 2001                    | 3,293,579                            | 145,284                                       | 327,968                                       | 6,046,016                      | 58,539,194        | 191,938               | 258,689                       | 6,424,177                                         | 75,226,846    |              |
| 2002                    | 3,008,432                            | 127,392                                       | 321,476                                       | 6,794,396                      | 53,188,388        | 186,918               | 238,166                       | 5,733,510                                         | 69,598,679    |              |
| 2003                    | 3,059,898                            | 131,038                                       | 340,003                                       | 7,048,962                      | 55,840,685        | 201,424               | 237,144                       | 6,035,052                                         | 72,894,206    |              |
| 2004                    | 3,249,402                            | 167,420                                       | 343,909                                       | 8,136,038                      | 56,614,700        | 353,510               | 252,973                       | 5,811,423                                         | 74,929,374    |              |
| 2005                    | 3,849,114                            | 178,696                                       | 356,697                                       | 7,506,113                      | 67,920,825        | 696,486               | 251,713                       | 6,720,787                                         | 87,480,431    |              |
| 2006                    | 3,823,965                            | 201,167                                       | 356,343                                       | 8,421,090                      | 70,090,468        | 600,124               | 287,668                       | 6,318,619                                         | 90,099,445    |              |
| 2007                    | 4,050,598                            | 192,452                                       | 367,989                                       | 9,225,405                      | 72,271,152        | 640,680               | 308,813                       | 6,632,802                                         | 93,689,891    |              |
| 2008                    | 4,279,612                            | 204,545                                       | 380,595                                       | 9,664,260                      | 76,877,516        | 677,717               | 324,583                       | 7,012,417                                         | 99,421,245    |              |
| 2009                    | 3,966,617                            | 188,208                                       | 363,376                                       | 9,370,322                      | 71,327,477        | 631,330               | 303,305                       | 6,497,063                                         | 92,647,698    |              |
| 2010                    | 4,113,302                            | 196,063                                       | 363,827                                       | 9,731,139                      | 73,787,788        | 655,565               | 316,626                       | 6,743,120                                         | 95,907,430    |              |
| 2011                    | 3,874,631                            | 183,247                                       | 365,305                                       | 9,113,254                      | 69,182,673        | 616,220               | 298,951                       | 6,342,401                                         | 89,976,682    |              |
| 2012                    | 3,878,311                            | 183,436                                       | 365,870                                       | 9,133,635                      | 69,489,733        | 617,139               | 297,527                       | 6,348,522                                         | 90,314,173    |              |
| 2013                    | 3,980,103                            | 188,526                                       | 366,014                                       | 9,359,503                      | 70,873,022        | 633,367               | 307,855                       | 6,517,878                                         | 92,226,268    |              |
| 2014                    | 3,835,934                            | 180,813                                       | 363,349                                       | 9,009,459                      | 68,531,082        | 609,676               | 294,142                       | 6,276,040                                         | 89,100,495    |              |
| 2015                    | 3,929,203                            | 185,449                                       | 360,236                                       | 9,146,859                      | 69,875,767        | 624,534               | 302,896                       | 6,431,115                                         | 90,856,059    |              |
| 2016                    | 4,054,051                            | 191,933                                       | 353,913                                       | 9,382,332                      | 71,882,198        | 644,775               | 314,051                       | 6,639,857                                         | 93,463,110    |              |
| 2017                    | 3,933,656                            | 185,707                                       | 339,826                                       | 8,963,914                      | 69,933,042        | 625,254               | 303,510                       | 6,438,699                                         | 90,723,608    |              |
| 2018                    | 3,877,898                            | 183,368                                       | 317,309                                       | 8,744,378                      | 69,448,565        | 607,572               | 297,472                       | 6,347,512                                         | 89,824,074    |              |
| 2019                    | 4,038,889                            | 191,453                                       | 308,520                                       | 9,057,622                      | 71,916,941        | 632,667               | 311,690                       | 6,615,651                                         | 93,073,433    |              |
| 2020                    | 3,881,703                            | 183,599                                       | 306,942                                       | 8,657,479                      | 69,393,322        | 607,048               | 298,914                       | 6,354,035                                         | 89,683,042    |              |
| 2021                    | 3,876,591                            | 183,285                                       | 305,966                                       | 8,622,945                      | 69,321,728        | 606,006               | 298,182                       | 6,345,293                                         | 89,559,996    |              |
| 2022                    | 3,793,937                            | 179,107                                       | 305,264                                       | 8,418,285                      | 67,979,484        | 592,530               | 291,359                       | 6,207,565                                         | 87,767,531    |              |
| 2023                    | 3,848,068                            | 181,946                                       | 304,618                                       | 8,542,787                      | 68,824,512        | 601,297               | 296,515                       | 6,298,213                                         | 88,897,956    |              |
| 2024                    | 3,910,496                            | 185,377                                       | 304,185                                       | 8,697,370                      | 69,945,110        | 611,749               | 301,933                       | 6,403,222                                         | 90,359,442    |              |
| 2025                    | 3,727,033                            | 176,175                                       | 303,889                                       | 8,275,519                      | 67,251,336        | 582,359               | 284,804                       | 6,097,739                                         | 86,698,854    |              |
| 2026                    | 3,851,835                            | 183,077                                       | 303,147                                       | 8,578,894                      | 69,245,440        | 603,044               | 297,786                       | 6,307,981                                         | 89,371,204    |              |
| 2027                    | 3,803,892                            | 180,198                                       | 303,325                                       | 8,451,028                      | 68,403,305        | 594,695               | 292,546                       | 6,226,249                                         | 88,255,238    |              |
| 2028                    | 3,710,486                            | 176,264                                       | 300,043                                       | 8,258,773                      | 67,222,271        | 580,588               | 282,457                       | 6,073,694                                         | 86,604,576    |              |
| 2029                    | 3,702,485                            | 175,567                                       | 300,076                                       | 8,227,173                      | 67,001,010        | 578,833               | 284,203                       | 6,059,217                                         | 86,328,564    |              |
| 2030                    | 3,394,819                            | 162,444                                       | 299,551                                       | 7,596,089                      | 63,145,088        | 532,379               | 259,660                       | 5,555,621                                         | 80,945,651    |              |
| 2031                    | 3,321,520                            | 158,601                                       | 298,766                                       | 7,405,209                      | 62,025,846        | 519,996               | 252,533                       | 5,432,778                                         | 79,415,249    |              |
| 2032                    | 3,384,170                            | 161,888                                       | 297,700                                       | 7,554,685                      | 62,984,474        | 530,283               | 258,570                       | 5,537,840                                         | 80,709,610    |              |
| 2033                    | 3,459,953                            | 165,849                                       | 297,895                                       | 7,743,463                      | 64,476,534        | 542,687               | 263,285                       | 5,664,511                                         | 82,614,177    |              |
| 2034                    | 3,386,605                            | 162,011                                       | 297,310                                       | 7,552,598                      | 63,104,669        | 530,447               | 258,170                       | 5,541,789                                         | 80,833,599    |              |
| 2035                    | 3,449,337                            | 165,297                                       | 296,054                                       | 7,707,229                      | 64,291,698        | 540,296               | 262,475                       | 5,646,842                                         | 82,359,228    |              |
| TOTAL                   | 178,495,150                          | 8,629,945                                     | 17,630,077                                    | 405,131,210                    | 3,365,555,387     | 22,643,293            | 13,871,410                    | 314,910,696                                       | 4,326,867,168 |              |

**TABLE B-23. Total Transportation and Delta Water Charge for Each Contractor**

| Calendar<br><br>Year | (in dollars)                                         |                                    |                                          |                                                     |                           |                                               |                           |                               |                                                            |                                                         | Sheet 3 of 4 |
|----------------------|------------------------------------------------------|------------------------------------|------------------------------------------|-----------------------------------------------------|---------------------------|-----------------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------|---------------------------------------------------------|--------------|
|                      | SOUTHERN CALIFORNIA AREA                             |                                    |                                          |                                                     |                           |                                               |                           |                               |                                                            |                                                         |              |
|                      | Antelope<br>Valley -<br>East Kern<br>Water<br>Agency | Castaic<br>Lake<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Crestline -<br>Lake<br>Arrowhead<br>Water<br>Agency | Desert<br>Water<br>Agency | Littlerock<br>Creek<br>Irrigation<br>District | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | San Gabriel<br>Valley<br>Municipal<br>Water<br>District |              |
|                      | [20]                                                 | [21]                               | [22]                                     | [23]                                                | [24]                      | [25]                                          | [26]                      | [27]                          | [28]                                                       | [29]                                                    |              |
| 1961                 | 0                                                    | 0                                  | 0                                        | 0                                                   | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       | 0            |
| 1962                 | 0                                                    | 0                                  | 0                                        | 0                                                   | 0                         | 0                                             | 0                         | 0                             | 0                                                          | 0                                                       | 0            |
| 1963                 | 33,309                                               | 0                                  | 0                                        | 0                                                   | 0                         | 0                                             | 0                         | 0                             | 51,711                                                     | 0                                                       | 0            |
| 1964                 | 62,847                                               | 27,438                             | 16,286                                   | 4,369                                               | 37,145                    | 1,142                                         | 28,427                    | 8,202                         | 82,782                                                     | 34,973                                                  | 0            |
| 1965                 | 118,565                                              | 52,989                             | 28,459                                   | 7,191                                               | 40,756                    | 2,081                                         | 50,300                    | 15,217                        | 135,023                                                    | 35,333                                                  | 0            |
| 1966                 | 215,713                                              | 101,232                            | 51,184                                   | 12,474                                              | 73,129                    | 3,752                                         | 90,369                    | 27,670                        | 232,426                                                    | 61,445                                                  |              |
| 1967                 | 417,348                                              | 210,746                            | 98,904                                   | 23,464                                              | 141,365                   | 7,282                                         | 175,119                   | 54,006                        | 433,210                                                    | 115,536                                                 |              |
| 1968                 | 744,206                                              | 491,125                            | 176,688                                  | 41,496                                              | 251,125                   | 12,866                                        | 311,081                   | 95,438                        | 781,930                                                    | 208,864                                                 |              |
| 1969                 | 1,072,647                                            | 742,016                            | 264,900                                  | 61,208                                              | 370,850                   | 18,688                                        | 458,937                   | 138,023                       | 1,205,472                                                  | 321,659                                                 |              |
| 1970                 | 1,395,848                                            | 941,966                            | 371,728                                  | 89,673                                              | 519,163                   | 25,223                                        | 632,989                   | 184,783                       | 1,777,650                                                  | 467,431                                                 |              |
| 1971                 | 1,727,773                                            | 1,136,343                          | 503,422                                  | 128,321                                             | 712,537                   | 31,827                                        | 857,146                   | 231,214                       | 2,538,403                                                  | 659,218                                                 |              |
| 1972                 | 2,207,788                                            | 1,381,338                          | 682,096                                  | 185,824                                             | 999,700                   | 43,760                                        | 1,179,256                 | 287,548                       | 3,774,702                                                  | 950,069                                                 |              |
| 1973                 | 2,360,340                                            | 1,429,754                          | 829,097                                  | 190,947                                             | 1,216,863                 | 46,049                                        | 1,270,009                 | 313,372                       | 4,042,999                                                  | 960,784                                                 |              |
| 1974                 | 2,481,092                                            | 1,525,225                          | 853,731                                  | 204,027                                             | 1,256,738                 | 48,922                                        | 1,328,852                 | 331,627                       | 4,480,180                                                  | 1,104,244                                               |              |
| 1975                 | 2,698,796                                            | 1,616,198                          | 900,445                                  | 219,242                                             | 1,332,005                 | 53,231                                        | 1,414,851                 | 355,193                       | 4,655,321                                                  | 1,207,793                                               |              |
| 1976                 | 3,163,245                                            | 1,652,864                          | 958,179                                  | 232,081                                             | 1,424,703                 | 57,721                                        | 1,491,141                 | 381,199                       | 4,854,833                                                  | 1,278,480                                               |              |
| 1977                 | 3,145,012                                            | 1,740,705                          | 859,286                                  | 245,063                                             | 1,267,009                 | 54,200                                        | 1,578,494                 | 406,543                       | 5,110,695                                                  | 1,336,049                                               |              |
| 1978                 | 3,593,002                                            | 1,873,735                          | 1,058,836                                | 255,418                                             | 1,567,751                 | 56,795                                        | 1,625,709                 | 419,949                       | 5,108,379                                                  | 1,373,766                                               |              |
| 1979                 | 4,266,594                                            | 1,953,504                          | 1,144,724                                | 267,741                                             | 1,689,966                 | 60,273                                        | 1,801,011                 | 449,679                       | 5,153,276                                                  | 1,341,866                                               |              |
| 1980                 | 4,950,893                                            | 2,091,841                          | 1,254,546                                | 295,300                                             | 1,890,349                 | 67,594                                        | 1,972,994                 | 498,972                       | 5,664,035                                                  | 1,484,871                                               |              |
| 1981                 | 5,778,625                                            | 2,561,138                          | 1,413,847                                | 328,765                                             | 2,140,325                 | 100,740                                       | 2,291,039                 | 603,182                       | 6,478,238                                                  | 1,688,045                                               |              |
| 1982                 | 5,537,462                                            | 2,724,147                          | 1,499,972                                | 346,669                                             | 2,284,051                 | 82,284                                        | 2,265,745                 | 641,909                       | 6,769,199                                                  | 1,929,385                                               |              |
| 1983                 | 6,287,841                                            | 2,794,693                          | 2,021,337                                | 380,786                                             | 3,118,525                 | 88,372                                        | 2,461,270                 | 658,528                       | 6,981,081                                                  | 1,808,463                                               |              |
| 1984                 | 7,663,206                                            | 3,873,394                          | 3,123,607                                | 497,530                                             | 4,874,874                 | 96,480                                        | 2,726,640                 | 727,732                       | 8,069,552                                                  | 2,597,938                                               |              |
| 1985                 | 9,494,182                                            | 4,339,431                          | 3,957,883                                | 601,872                                             | 6,209,843                 | 103,693                                       | 2,916,561                 | 959,565                       | 8,909,659                                                  | 2,686,498                                               |              |
| 1986                 | 9,462,355                                            | 4,974,829                          | 4,418,531                                | 647,576                                             | 6,954,134                 | 130,208                                       | 3,100,055                 | 1,223,753                     | 9,159,122                                                  | 3,398,233                                               |              |
| 1987                 | 9,496,466                                            | 4,832,282                          | 4,286,505                                | 678,027                                             | 6,830,144                 | 240,859                                       | 3,154,460                 | 1,254,957                     | 10,560,620                                                 | 3,398,610                                               |              |
| 1988                 | 9,094,804                                            | 5,019,001                          | 4,343,583                                | 704,352                                             | 6,996,687                 | 158,832                                       | 3,328,582                 | 1,044,110                     | 11,111,463                                                 | 3,270,823                                               |              |
| 1989                 | 10,985,206                                           | 5,028,306                          | 4,050,973                                | 691,132                                             | 6,579,291                 | 210,621                                       | 3,409,349                 | 1,746,666                     | 10,828,253                                                 | 3,453,364                                               |              |
| 1990                 | 12,376,664                                           | 5,496,308                          | 4,745,014                                | 729,168                                             | 7,663,400                 | 331,158                                       | 3,640,183                 | 1,953,805                     | 11,739,188                                                 | 4,220,944                                               |              |
| 1991                 | 9,236,278                                            | 4,610,066                          | 3,298,997                                | 688,804                                             | 5,277,044                 | 221,152                                       | 4,499,612                 | 1,639,984                     | 11,121,092                                                 | 3,642,282                                               |              |
| 1992                 | 11,792,383                                           | 5,798,748                          | 3,452,415                                | 612,831                                             | 5,529,109                 | 174,984                                       | 5,477,700                 | 1,532,224                     | 11,160,289                                                 | 3,693,763                                               |              |
| 1993                 | 12,205,489                                           | 5,445,406                          | 3,656,000                                | 617,132                                             | 5,863,795                 | 211,890                                       | 5,368,538                 | 1,753,869                     | 12,123,330                                                 | 4,041,978                                               |              |
| 1994                 | 14,274,279                                           | 6,012,641                          | 3,681,660                                | 694,501                                             | 5,904,571                 | 277,997                                       | 6,319,305                 | 2,090,615                     | 12,750,420                                                 | 4,776,885                                               |              |
| 1995                 | 14,140,578                                           | 6,387,506                          | 4,503,309                                | 661,742                                             | 7,259,099                 | 212,229                                       | 5,511,821                 | 1,952,389                     | 12,220,505                                                 | 4,480,562                                               |              |
| 1996                 | 14,566,985                                           | 6,618,643                          | 7,455,778                                | 710,580                                             | 12,127,573                | 208,342                                       | 5,609,442                 | 2,300,101                     | 12,746,956                                                 | 4,598,694                                               |              |
| 1997                 | 15,136,535                                           | 6,512,295                          | 7,071,320                                | 750,347                                             | 8,455,419                 | 207,872                                       | 6,031,417                 | 2,342,092                     | 14,414,986                                                 | 4,897,092                                               |              |
| 1998                 | 13,676,086                                           | 6,145,896                          | 6,170,181                                | 717,194                                             | 6,979,423                 | 209,228                                       | 7,636,031                 | 1,950,284                     | 14,321,071                                                 | 4,179,809                                               |              |
| 1999                 | 15,392,624                                           | 6,644,958                          | 5,183,512                                | 823,182                                             | 7,122,720                 | 213,796                                       | 8,243,073                 | 2,350,813                     | 15,737,693                                                 | 5,114,792                                               |              |
| 2000                 | 14,788,674                                           | 10,253,713                         | 3,643,052                                | 793,120                                             | 5,562,498                 | 186,800                                       | 8,190,152                 | 2,079,775                     | 15,511,808                                                 | 4,255,067                                               |              |
| 2001                 | 24,849,221                                           | 15,869,263                         | 4,683,972                                | 995,954                                             | 7,551,916                 | 199,053                                       | 8,875,616                 | 3,991,805                     | 21,437,432                                                 | 4,395,648                                               |              |
| 2002                 | 16,254,111                                           | 13,071,866                         | 3,921,265                                | 957,440                                             | 6,293,917                 | 182,320                                       | 8,047,536                 | 3,366,534                     | 22,231,817                                                 | 5,760,963                                               |              |
| 2003                 | 17,593,494                                           | 13,984,378                         | 4,109,892                                | 930,633                                             | 6,603,939                 | 187,292                                       | 9,902,296                 | 2,911,116                     | 20,095,911                                                 | 5,931,746                                               |              |
| 2004                 | 18,675,421                                           | 15,379,485                         | 4,686,581                                | 1,033,166                                           | 6,571,517                 | 201,435                                       | 9,935,287                 | 3,176,601                     | 24,330,801                                                 | 5,413,295                                               |              |
| 2005                 | 20,181,040                                           | 15,026,082                         | 18,471,934                               | 800,300                                             | 11,908,258                | 198,531                                       | 10,093,257                | 3,414,665                     | 22,051,488                                                 | 5,845,449                                               |              |
| 2006                 | 23,683,654                                           | 16,736,993                         | 28,903,046                               | 1,331,841                                           | 10,743,103                | 330,617                                       | 15,760,795                | 4,626,546                     | 31,241,765                                                 | 6,734,838                                               |              |
| 2007                 | 22,684,050                                           | 20,302,270                         | 40,748,663                               | 1,592,339                                           | 13,228,376                | 649,617                                       | 13,037,235                | 5,934,438                     | 35,150,616                                                 | 6,922,951                                               |              |
| 2008                 | 40,706,827                                           | 26,197,663                         | 46,851,741                               | 2,406,562                                           | 18,059,568                | 728,045                                       | 27,018,365                | 6,648,928                     | 42,731,463                                                 | 10,828,989                                              |              |
| 2009                 | 39,857,068                                           | 23,953,541                         | 42,833,446                               | 2,137,839                                           | 16,315,278                | 661,627                                       | 26,570,043                | 6,030,707                     | 39,018,234                                                 | 9,794,010                                               |              |
| 2010                 | 41,266,688                                           | 24,708,659                         | 44,351,086                               | 2,200,593                                           | 16,909,011                | 684,615                                       | 27,468,787                | 6,244,731                     | 40,119,523                                                 | 10,111,893                                              |              |
| 2011                 | 35,252,265                                           | 24,192,013                         | 39,372,718                               | 1,890,329                                           | 14,893,069                | 583,929                                       | 23,100,350                | 5,309,873                     | 36,140,894                                                 | 8,983,662                                               |              |
| 2012                 | 36,439,256                                           | 25,676,576                         | 40,595,584                               | 1,946,510                                           | 15,378,042                | 603,253                                       | 23,916,299                | 5,488,662                     | 37,063,005                                                 | 9,248,524                                               |              |
| 2013                 | 36,164,461                                           | 25,503,637                         | 40,393,094                               | 1,923,100                                           | 15,267,272                | 599,432                                       | 23,737,433                | 5,451,596                     | 36,663,328                                                 | 9,153,168                                               |              |
| 2014                 | 35,198,493                                           | 24,742,175                         | 39,282,310                               | 1,895,914                                           | 14,867,399                | 583,148                                       | 23,137,874                | 5,301,182                     | 36,195,100                                                 | 8,990,019                                               |              |
| 2015                 | 35,391,629                                           | 24,941,331                         | 39,480,268                               | 1,885,620                                           | 14,913,047                | 586,348                                       | 23,281,501                | 5,330,296                     | 35,988,612                                                 | 8,961,904                                               |              |
| 2016                 | 36,536,373                                           | 25,707,422                         | 40,513,686                               | 1,964,430                                           | 15,383,339                | 604,881                                       | 24,045,767                | 5,503,588                     | 37,320,362                                                 | 9,301,059                                               |              |
| 2017                 | 35,091,834                                           | 24,727,995                         | 39,216,474                               | 1,877,395                                           | 14,783,812                | 581,117                                       | 23,133,137                | 5,288,187                     | 35,798,011                                                 | 8,899,246                                               |              |
| 2018                 | 35,810,832                                           | 25,002,882                         | 39,693,390                               | 1,913,781                                           | 15,033,042                | 592,390                                       | 23,677,290                | 5,400,668                     | 36,308,041                                                 | 9,045,251                                               |              |
| 2019                 | 36,690,767                                           | 25,446,654                         | 40,527,582                               | 1,956,959                                           | 15,356,813                | 606,336                                       | 24,125,026                | 5,532,246                     | 37,043,660                                                 | 9,238,549                                               |              |
| 2020                 | 34,706,628                                           | 23,999,980                         | 38,012,667                               | 1,836,505                                           | 14,393,056                | 572,661                                       | 22,907,060                | 5,229,091                     | 34,745,523                                                 | 8,632,019                                               |              |
| 2021                 | 34,529,400                                           | 23,794,903                         | 37,566,870                               | 1,793,409                                           | 14,196,262                | 568,614                                       | 22,735,305                | 5,198,146                     | 33,937,329                                                 | 8,444,684                                               |              |
| 2022                 | 33,551,740                                           | 22,962,154                         | 36,126,906                               | 1,746,863                                           | 13,703,772                | 552,397                                       | 22,058,737                | 5,050,729                     | 33,015,021                                                 | 8,186,550                                               |              |
| 2023                 | 33,827,207                                           | 23,192,456                         | 35,432,310                               | 1,770,113                                           | 13,672,759                | 556,693                                       | 22,229,719                | 5,091,719                     | 33,319,171                                                 | 8,256,120                                               |              |
| 2024                 | 34,554,713                                           | 23,633,019                         | 36,101,277                               | 1,783,905                                           | 13,930,792                | 568,460                                       | 22,625,360                | 5,201,847                     | 33,559,933                                                 | 8,351,399                                               |              |
| 2025                 | 33,848,230                                           | 23,029,194                         | 35,186,181                               | 1,750,778                                           | 13,623,732                | 556,794                                       | 22,196,062                | 5,096,665                     | 32,972,214                                                 | 8,187,195                                               |              |
| 2026                 | 34,191,248                                           | 23,262,373                         | 35,684,053                               | 1,774,527                                           | 13,750,869                | 562,197                                       | 22,355,095                | 5,149,482                     | 33,269,374                                                 | 8,254,303                                               |              |
| 2027                 | 34,003,401                                           | 23,007,614                         | 35,025,801                               | 1,748,891                                           | 13,602,556                | 559,265                                       | 22,250,981                | 5,120,065                     | 32,862,794                                                 | 8,165,050                                               |              |
| 2028                 | 33,522,688                                           | 22,746,496                         | 34,691,667                               | 1,711,243                                           | 13,388,033                | 551,078                                       | 21,897,566                | 5,050,751                     | 32,116,712                                                 | 7,976,582                                               |              |
| 2029                 | 33,407,152                                           | 22,473,529                         | 34,600,251                               | 1,730,634                                           | 13,379,814                | 549,279                                       | 21,835,173                | 5,032,566                     | 32,496,643                                                 | 8,044,426                                               |              |
| 2030                 | 32,189,905                                           | 21,052,356                         | 33,195,040                               | 1,656,063                                           | 12,795,421                | 528,394                                       | 20,906,906                | 4,859,043                     | 31,010,975                                                 | 7,647,629                                               |              |
| 2031                 | 31,852,386                                           | 20,644,419                         | 33,039,845                               | 1,606,372                                           | 12,646,752                | 522,868                                       | 20,742,331                | 4,808,724                     | 30,155,170                                                 | 7,458,827                                               |              |
| 2032                 | 32,043,916                                           | 20,931,401                         | 32,798,969                               | 1,642,599                                           | 12,689,363                | 525,956                                       | 20,787,569                | 4,837,913                     | 30,816,320                                                 | 7,597,020                                               |              |
| 2033                 | 34,018,924                                           | 22,167,302                         | 34,996,495                               | 1,725,980                                           | 13,515,073                | 558,046                                       | 22,136,767</              |                               |                                                            |                                                         |              |

**TABLE B-23. Total Transportation and Delta Water Charge for Each Contractor**

| Calendar<br><br>Year | (in dollars)                               |                                                                    |                                                   |                |                         |                       |                            |            | Sheet 4 of 4                              |                    |
|----------------------|--------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|----------------|-------------------------|-----------------------|----------------------------|------------|-------------------------------------------|--------------------|
|                      | SOUTHERN CALIFORNIA AREA (continued)       |                                                                    |                                                   |                | FEATHER RIVER AREA      |                       |                            |            | South Bay<br>Area<br>Future<br>Contractor | GRAND<br><br>TOTAL |
|                      | San<br>Gorgonio<br>Pass<br>Water<br>Agency | The<br>Metropolitan<br>Water District<br>of Southern<br>California | Ventura<br>County<br>Flood<br>Control<br>District | Total          | City<br>of<br>Yuba City | County<br>of<br>Butte | Plumas<br>County<br>FC&WCD | Total      |                                           |                    |
|                      | [30]                                       | [31]                                                               | [32]                                              | [33]           | [34]                    | [35]                  | [36]                       | [37]       | [38]                                      | [39]               |
| 1961                 | 0                                          | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0          | 0                                         | 0                  |
| 1962                 | 0                                          | 0                                                                  | 0                                                 | 0              | 0                       | 0                     | 0                          | 0          | 3,219                                     | 79,888             |
| 1963                 | 0                                          | 690,539                                                            | 0                                                 | 775,559        | 0                       | 0                     | 0                          | 0          | 12,626                                    | 1,625,689          |
| 1964                 | 21,728                                     | 1,260,042                                                          | 9,375                                             | 1,594,755      | 0                       | 0                     | 0                          | 0          | 13,938                                    | 2,801,552          |
| 1965                 | 21,859                                     | 2,179,810                                                          | 17,761                                            | 2,705,344      | 0                       | 0                     | 405                        | 405        | 28,937                                    | 4,799,776          |
| 1966                 | 37,952                                     | 3,898,819                                                          | 33,415                                            | 4,839,578      | 0                       | 0                     | 564                        | 564        | 31,321                                    | 7,380,275          |
| 1967                 | 71,260                                     | 7,691,085                                                          | 68,133                                            | 9,507,458      | 0                       | 0                     | 562                        | 562        | 47,718                                    | 13,029,930         |
| 1968                 | 128,877                                    | 15,313,065                                                         | 142,760                                           | 18,699,521     | 0                       | 1,050                 | 1,439                      | 2,489      | 46,945                                    | 25,512,793         |
| 1969                 | 198,704                                    | 23,145,744                                                         | 215,144                                           | 28,213,991     | 0                       | 1,225                 | 4,119                      | 5,344      | 52,963                                    | 36,854,190         |
| 1970                 | 289,546                                    | 30,607,434                                                         | 273,523                                           | 37,576,957     | 0                       | 3,848                 | 17,111                     | 20,959     | 69,744                                    | 48,320,533         |
| 1971                 | 409,205                                    | 39,946,463                                                         | 342,325                                           | 49,224,198     | 0                       | 4,546                 | 19,182                     | 23,728     | 55,532                                    | 61,487,214         |
| 1972                 | 537,044                                    | 54,976,817                                                         | 422,192                                           | 67,618,135     | 0                       | 4,929                 | 21,145                     | 26,074     | 80,412                                    | 83,729,132         |
| 1973                 | 587,814                                    | 59,575,172                                                         | 435,541                                           | 73,258,742     | 0                       | 7,059                 | 21,772                     | 28,831     | 54,219                                    | 88,654,535         |
| 1974                 | 611,275                                    | 65,991,774                                                         | 455,447                                           | 80,673,134     | 0                       | 8,336                 | 22,403                     | 30,739     | 76,783                                    | 97,599,138         |
| 1975                 | 644,464                                    | 71,813,105                                                         | 478,284                                           | 87,388,928     | 0                       | 9,416                 | 23,517                     | 32,933     | 84,547                                    | 106,501,893        |
| 1976                 | 668,152                                    | 74,889,946                                                         | 475,466                                           | 91,528,011     | 0                       | 7,004                 | 23,251                     | 30,255     | 106,717                                   | 112,427,071        |
| 1977                 | 696,350                                    | 73,320,946                                                         | 506,941                                           | 90,267,293     | 0                       | 16,917                | 24,054                     | 40,971     | 98,618                                    | 111,032,307        |
| 1978                 | 708,874                                    | 81,933,455                                                         | 523,053                                           | 100,098,721    | 0                       | 12,635                | 24,219                     | 36,854     | 100,786                                   | 124,071,754        |
| 1979                 | 712,699                                    | 83,583,809                                                         | 526,278                                           | 102,951,420    | 0                       | 16,575                | 28,346                     | 44,921     | 119,352                                   | 130,086,642        |
| 1980                 | 862,107                                    | 93,010,922                                                         | 583,496                                           | 114,627,919    | 0                       | 19,834                | 26,556                     | 46,390     | 178,812                                   | 144,500,919        |
| 1981                 | 946,788                                    | 112,152,065                                                        | 672,397                                           | 137,155,193    | 0                       | 21,682                | 34,558                     | 56,240     | 185,347                                   | 175,049,505        |
| 1982                 | 1,021,156                                  | 117,123,623                                                        | 727,476                                           | 142,953,077    | 0                       | 16,117                | 43,111                     | 59,228     | 173,894                                   | 184,116,739        |
| 1983                 | 1,076,102                                  | 118,970,809                                                        | 854,111                                           | 147,501,918    | 0                       | 15,202                | 29,405                     | 44,607     | 220,926                                   | 185,765,602        |
| 1984                 | 1,211,437                                  | 156,252,901                                                        | 933,156                                           | 192,648,447    | 20,590                  | 15,442                | 31,790                     | 67,822     | 225,959                                   | 245,200,397        |
| 1985                 | 1,287,602                                  | 195,472,350                                                        | 993,495                                           | 237,932,635    | 24,050                  | 16,976                | 32,399                     | 73,425     | 340,322                                   | 301,620,724        |
| 1986                 | 1,344,580                                  | 218,310,192                                                        | 1,058,119                                         | 264,181,687    | 31,753                  | 18,145                | 33,591                     | 83,489     | 279,227                                   | 334,034,736        |
| 1987                 | 1,379,421                                  | 204,837,839                                                        | 1,056,160                                         | 252,006,349    | 37,071                  | 17,794                | 33,378                     | 88,243     | 345,116                                   | 324,113,126        |
| 1988                 | 1,465,634                                  | 221,645,350                                                        | 1,123,943                                         | 269,307,163    | 48,058                  | 19,117                | 33,600                     | 100,775    | 365,207                                   | 345,900,277        |
| 1989                 | 1,505,285                                  | 230,306,400                                                        | 1,232,220                                         | 280,027,066    | 61,184                  | 20,809                | 37,183                     | 119,176    | 422,329                                   | 360,794,226        |
| 1990                 | 1,624,564                                  | 277,172,576                                                        | 1,855,829                                         | 333,548,801    | 66,041                  | 20,855                | 36,807                     | 123,703    | 474,284                                   | 415,138,600        |
| 1991                 | 1,720,675                                  | 221,864,576                                                        | 1,549,792                                         | 269,370,354    | 180,212                 | 22,526                | 42,194                     | 244,932    | 214,683                                   | 339,243,411        |
| 1992                 | 1,779,693                                  | 245,342,779                                                        | 1,503,314                                         | 297,850,231    | 208,216                 | 26,028                | 43,511                     | 277,755    | 443,676                                   | 384,281,453        |
| 1993                 | 1,943,122                                  | 219,214,982                                                        | 1,551,085                                         | 273,996,616    | 209,613                 | 26,203                | 47,582                     | 283,398    | 599,571                                   | 370,249,570        |
| 1994                 | 1,920,319                                  | 257,372,371                                                        | 1,475,136                                         | 317,550,701    | 201,284                 | 25,161                | 46,074                     | 272,519    | 609,932                                   | 412,388,220        |
| 1995                 | 1,982,578                                  | 225,839,379                                                        | 1,568,231                                         | 286,719,927    | 216,944                 | 27,118                | 50,016                     | 294,078    | 534,971                                   | 394,801,706        |
| 1996                 | 1,651,010                                  | 235,386,048                                                        | 1,622,470                                         | 305,602,621    | 217,250                 | 27,156                | 56,618                     | 301,024    | 571,857                                   | 423,910,599        |
| 1997                 | 1,759,495                                  | 245,428,898                                                        | 1,777,095                                         | 314,784,863    | 236,300                 | 29,847                | 59,910                     | 326,057    | 428,638                                   | 438,907,814        |
| 1998                 | 1,952,225                                  | 227,227,506                                                        | 1,797,418                                         | 292,962,350    | 128,021                 | 29,927                | 54,386                     | 212,334    | 465,140                                   | 417,128,933        |
| 1999                 | 2,268,132                                  | 251,361,636                                                        | 1,866,557                                         | 325,323,488    | 254,675                 | 31,834                | 58,367                     | 344,876    | 559,344                                   | 461,521,694        |
| 2000                 | 2,567,020                                  | 253,103,196                                                        | 1,968,766                                         | 322,903,641    | 262,163                 | 79,001                | 61,576                     | 402,740    | 0                                         | 453,850,970        |
| 2001                 | 3,551,602                                  | 442,340,647                                                        | 2,260,949                                         | 541,003,078    | 261,699                 | 93,471                | 62,742                     | 417,912    | 0                                         | 687,994,709        |
| 2002                 | 4,963,185                                  | 330,993,173                                                        | 2,296,388                                         | 418,340,514    | 266,107                 | 95,018                | 68,291                     | 429,416    | 0                                         | 560,404,651        |
| 2003                 | 5,766,410                                  | 357,998,964                                                        | 2,313,407                                         | 448,329,377    | 262,547                 | 93,638                | 68,949                     | 425,134    | 0                                         | 592,798,731        |
| 2004                 | 6,268,152                                  | 407,770,558                                                        | 2,591,574                                         | 506,033,872    | 284,387                 | 102,404               | 29,277                     | 416,068    | 0                                         | 655,400,528        |
| 2005                 | 6,389,956                                  | 386,882,222                                                        | 2,124,149                                         | 503,387,332    | 280,033                 | 41,076                | 28,801                     | 349,910    | 0                                         | 665,696,784        |
| 2006                 | 7,207,189                                  | 486,434,684                                                        | 2,677,770                                         | 636,412,841    | 317,398                 | 50,593                | 85,638                     | 453,629    | 0                                         | 811,760,799        |
| 2007                 | 8,301,227                                  | 562,288,429                                                        | 5,692,615                                         | 736,532,826    | 309,089                 | 741,743               | 53,962                     | 1,104,794  | 0                                         | 921,374,246        |
| 2008                 | 10,653,658                                 | 528,676,076                                                        | 6,307,591                                         | 767,815,476    | 305,584                 | 740,679               | 86,913                     | 1,133,176  | 0                                         | 963,818,360        |
| 2009                 | 10,026,918                                 | 483,762,681                                                        | 5,715,751                                         | 706,677,143    | 306,432                 | 740,936               | 88,991                     | 1,136,359  | 0                                         | 893,181,484        |
| 2010                 | 10,226,075                                 | 497,956,487                                                        | 5,922,991                                         | 728,171,139    | 303,988                 | 740,195               | 90,203                     | 1,134,386  | 0                                         | 919,160,619        |
| 2011                 | 9,533,531                                  | 529,490,297                                                        | 5,050,647                                         | 733,793,577    | 308,296                 | 741,502               | 93,348                     | 1,143,146  | 0                                         | 917,687,067        |
| 2012                 | 9,691,684                                  | 546,679,467                                                        | 5,223,550                                         | 757,950,412    | 308,358                 | 741,521               | 95,442                     | 1,145,321  | 0                                         | 942,739,810        |
| 2013                 | 9,620,229                                  | 542,369,311                                                        | 5,181,356                                         | 752,027,417    | 311,522                 | 742,481               | 98,564                     | 1,152,567  | 0                                         | 938,591,240        |
| 2014                 | 9,517,463                                  | 527,462,439                                                        | 5,015,482                                         | 732,188,998    | 313,804                 | 743,174               | 101,467                    | 1,158,445  | 0                                         | 914,165,821        |
| 2015                 | 9,484,196                                  | 529,487,881                                                        | 5,047,094                                         | 734,779,727    | 317,110                 | 744,177               | 104,480                    | 1,165,767  | 0                                         | 918,759,375        |
| 2016                 | 9,689,362                                  | 546,757,332                                                        | 5,205,860                                         | 758,533,461    | 317,794                 | 744,385               | 107,086                    | 1,169,265  | 0                                         | 945,625,861        |
| 2017                 | 9,448,095                                  | 524,558,480                                                        | 4,994,015                                         | 728,397,798    | 316,794                 | 744,081               | 106,841                    | 1,167,716  | 0                                         | 911,549,773        |
| 2018                 | 9,564,635                                  | 531,416,967                                                        | 5,065,775                                         | 738,524,944    | 308,881                 | 741,680               | 104,878                    | 1,155,439  | 0                                         | 919,666,248        |
| 2019                 | 9,663,522                                  | 541,110,308                                                        | 5,147,275                                         | 752,445,697    | 313,512                 | 743,085               | 103,400                    | 1,159,997  | 0                                         | 938,122,291        |
| 2020                 | 9,312,150                                  | 507,712,173                                                        | 4,845,599                                         | 706,905,112    | 308,468                 | 741,554               | 90,224                     | 1,140,246  | 0                                         | 886,981,856        |
| 2021                 | 9,190,708                                  | 500,466,131                                                        | 4,793,201                                         | 697,214,962    | 309,103                 | 741,747               | 89,556                     | 1,140,406  | 0                                         | 877,215,083        |
| 2022                 | 9,043,387                                  | 482,232,742                                                        | 4,620,027                                         | 672,851,025    | 307,097                 | 741,138               | 87,673                     | 1,135,908  | 0                                         | 849,910,820        |
| 2023                 | 9,086,879                                  | 485,549,294                                                        | 4,667,328                                         | 676,651,768    | 307,052                 | 741,124               | 87,661                     | 1,135,837  | 0                                         | 855,098,062        |
| 2024                 | 9,149,110                                  | 494,280,930                                                        | 4,764,691                                         | 689,505,436    | 304,790                 | 740,438               | 87,100                     | 1,132,328  | 0                                         | 869,124,927        |
| 2025                 | 9,070,689                                  | 481,672,371                                                        | 4,645,751                                         | 671,835,856    | 299,372                 | 738,794               | 85,755                     | 1,123,921  | 0                                         | 847,240,465        |
| 2026                 | 9,131,708                                  | 487,942,563                                                        | 4,708,150                                         | 680,035,942    | 294,360                 | 737,273               | 84,511                     | 1,116,144  | 0                                         | 858,434,268        |
| 2027                 | 9,056,171                                  | 479,634,866                                                        | 4,637,702                                         | 669,675,157    | 299,292                 | 738,769               | 85,731                     | 1,123,792  | 0                                         | 846,853,435        |
| 2028                 | 8,989,020                                  | 477,656,658                                                        | 4,623,231                                         | 664,921,725    | 286,425                 | 734,864               | 82,541                     | 1,103,830  | 0                                         | 838,885,317        |
| 2029                 | 9,020,239                                  | 471,565,313                                                        | 4,548,345                                         | 658,683,364    | 290,202                 | 736,011               | 83,476                     | 1,109,689  | 0                                         | 832,493,420        |
| 2030                 | 8,932,547                                  | 448,625,537                                                        | 4,341,570                                         | 627,741,386    | 249,799                 | 723,749               | 73,462                     | 1,047,010  | 0                                         | 791,434,696        |
| 2031                 | 8,812,531                                  | 438,325,752                                                        | 4,248,097                                         | 614,864,074    | 249,799                 | 723,749               | 73,461                     | 1,047,009  | 0                                         | 776,341,917        |
| 2032                 | 8,901,394                                  | 447,061,688                                                        | 4,320,565                                         | 624,954,673    | 249,799                 | 723,749               | 73,459                     | 1,047,007  | 0                                         | 788,335,550        |
| 2033                 | 9,146,851                                  | 471,328,368                                                        | 4,570,738                                         | 659,514,856    | 249,799                 | 723,749               | 73,459                     | 1,047,007  | 0                                         | 825,971,052        |
| 2034                 | 8,891,674                                  | 446,249,268                                                        | 4,321,519                                         | 624,967,330    | 249,799                 | 723,749               | 73,458                     | 1,047,006  | 0                                         | 788,434,545        |
| 2035                 | 9,220,784                                  | 471,769,178                                                        | 4,532,384                                         | 661,204,174    | 249,799                 | 723,749               | 73,456                     | 1,047,004  | 0                                         | 825,694,974        |
| TOTAL                | 344,137,675                                | 21,917,723,556                                                     | 189,719,041                                       | 29,507,749,245 | 12,621,715              | 22,480,359            | 4,008,954                  | 39,111,028 | 8,723,612                                 | 37,545,462,304     |

**TABLE B-24. Equivalent Unit Charge for Water Supply for Each Contractor <sup>a</sup>**

| Project Service Area<br>and<br>Water Supply Contractor                  | (in dollars per acre-foot)<br>Transportation Charge |                               |                               |                                |        | Delta<br>Water<br>Charge | Water System<br>Revenue<br>Bond<br>Surcharge | Total<br>Equivalent<br>Unit<br>Charge |
|-------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------|-------------------------------|--------------------------------|--------|--------------------------|----------------------------------------------|---------------------------------------|
|                                                                         | Capital<br>Cost<br>Component                        | Minimum<br>OMP&R<br>Component | Off-<br>Aqueduct<br>Component | Variable<br>OMP&R<br>Component | Total  |                          |                                              |                                       |
|                                                                         | [1]                                                 | [2]                           | [3]                           | [4]                            | [5]    | [6]                      | [7]                                          | [8]                                   |
| FEATHER RIVER AREA                                                      |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| City of Yuba City                                                       | 0.00                                                | 0.00                          | 0.00                          | 0.00                           | 0.00   | 55.51                    | 8.13                                         | 63.63                                 |
| County of Butte                                                         | 0.00                                                | 0.00                          | 0.00                          | 0.00                           | 0.00   | 33.84                    | 0.94                                         | 34.78                                 |
| Plumas County Flood Control and<br>Water Conservation District          | 26.70                                               | 3.41                          | 0.00                          | 0.00                           | 30.11  | 32.63                    | 5.01                                         | 67.75                                 |
| Feather River Area                                                      | 2.86                                                | 0.37                          | 0.00                          | 0.00                           | 3.22   | 39.51                    | 3.30                                         | 46.03                                 |
| NORTH BAY AREA                                                          |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| Napa County Flood Control and<br>Water Conservation District            | 135.62                                              | 42.90                         | 4.36                          | 17.44                          | 200.32 | 20.20                    | 11.27                                        | 231.79                                |
| Solano County Water Agency                                              | 83.62                                               | 34.22                         | 4.35                          | 11.76                          | 133.96 | 26.63                    | 10.49                                        | 171.07                                |
| North Bay Area                                                          | 103.21                                              | 37.49                         | 4.36                          | 13.90                          | 158.96 | 24.21                    | 10.78                                        | 193.95                                |
| SOUTH BAY AREA                                                          |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| Alameda County Flood Control and<br>Water Conservation District, Zone 7 | 36.18                                               | 33.99                         | 8.08                          | 25.72                          | 103.98 | 25.89                    | 7.36                                         | 137.22                                |
| Alameda County Water District                                           | 24.74                                               | 25.90                         | 7.02                          | 16.78                          | 74.44  | 21.70                    | 4.44                                         | 100.58                                |
| Santa Clara Valley Water District                                       | 22.15                                               | 19.42                         | 6.37                          | 13.28                          | 61.21  | 15.63                    | 3.22                                         | 80.06                                 |
| South Bay Area                                                          | 25.19                                               | 23.21                         | 6.80                          | 16.18                          | 71.37  | 18.55                    | 4.19                                         | 94.12                                 |
| SAN JOAQUIN VALLEY AREA                                                 |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| County of Kings                                                         | 5.10                                                | 5.21                          | 3.40                          | 9.86                           | 23.58  | 20.54                    | 3.51                                         | 47.63                                 |
| Dudley Ridge Water District                                             | 5.13                                                | 4.78                          | 3.16                          | 6.03                           | 19.10  | 16.23                    | 2.26                                         | 37.59                                 |
| Empire West Side Irrigation District                                    | 1.99                                                | 4.00                          | 2.43                          | 5.46                           | 13.89  | 17.54                    | 1.72                                         | 33.14                                 |
| Kern County Water Agency                                                | 9.26                                                | 9.24                          | 4.87                          | 8.22                           | 31.59  | 19.05                    | 2.39                                         | 53.03                                 |
| Oak Flat Water District                                                 | 2.00                                                | 2.26                          | 1.96                          | 3.73                           | 9.95   | 15.98                    | 1.71                                         | 27.64                                 |
| Tulare Lake Basin Water Storage District                                | 5.19                                                | 4.67                          | 3.10                          | 5.70                           | 18.66  | 16.59                    | 2.16                                         | 37.41                                 |
| San Joaquin Valley Area                                                 | 8.54                                                | 8.46                          | 4.57                          | 5.76                           | 27.32  | 16.71                    | 2.19                                         | 46.22                                 |
| CENTRAL COASTAL AREA                                                    |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| San Luis Obispo County Flood Control<br>and Water Conservation District | 167.69                                              | 80.38                         | 14.76                         | 118.09                         | 380.93 | 58.68                    | 20.98                                        | 460.59                                |
| Santa Barbara County Flood Control<br>and Water Conservation District   | 733.75                                              | 113.82                        | 17.96                         | 107.18                         | 972.71 | 48.37                    | 53.01                                        | 1,074.09                              |
| Central Coastal Area                                                    | 559.43                                              | 103.52                        | 16.97                         | 110.54                         | 790.46 | 51.55                    | 43.14                                        | 885.15                                |
| SOUTHERN CALIFORNIA AREA                                                |                                                     |                               |                               |                                |        |                          |                                              |                                       |
| Antelope Valley-East Kern Water Agency                                  | 45.13                                               | 40.28                         | 29.32                         | 85.09                          | 199.82 | 32.99                    | 7.89                                         | 240.71                                |
| Castaic Lake Water Agency                                               | 49.33                                               | 41.05                         | 23.25                         | 60.67                          | 174.30 | 27.98                    | 12.45                                        | 214.73                                |
| Coachella Valley Water District                                         | 51.57                                               | 49.30                         | 37.49                         | 97.10                          | 235.46 | 22.35                    | 10.21                                        | 268.02                                |
| Crestline-Lake Arrowhead Water Agency                                   | 109.60                                              | 87.56                         | 32.61                         | 110.75                         | 340.52 | 42.55                    | 14.44                                        | 397.51                                |
| Desert Water Agency                                                     | 43.39                                               | 39.41                         | 48.20                         | 57.65                          | 188.65 | 20.22                    | 6.64                                         | 215.51                                |
| Little Rock Creek Irrigation District                                   | 60.68                                               | 53.51                         | 28.96                         | 95.98                          | 239.14 | 43.28                    | 10.21                                        | 292.63                                |
| Mojave Water Agency                                                     | 96.15                                               | 97.86                         | 27.10                         | 161.62                         | 382.73 | 58.15                    | 20.26                                        | 461.13                                |
| Palmdale Water District                                                 | 51.29                                               | 47.37                         | 36.24                         | 109.30                         | 244.20 | 41.84                    | 9.20                                         | 295.24                                |
| San Bernardino Valley Municipal Water District                          | 175.21                                              | 118.24                        | 27.22                         | 101.16                         | 421.83 | 52.34                    | 18.67                                        | 492.84                                |
| San Gabriel Valley Municipal Water District                             | 98.25                                               | 80.15                         | 41.51                         | 71.20                          | 291.10 | 36.76                    | 12.61                                        | 340.47                                |
| San Geronimo Pass Water Agency                                          | 588.92                                              | 199.27                        | 22.72                         | 154.21                         | 965.12 | 59.63                    | 13.74                                        | 1,038.49                              |
| The Metropolitan Water District<br>of Southern California               | 77.53                                               | 56.34                         | 35.33                         | 60.90                          | 230.10 | 32.33                    | 10.16                                        | 272.59                                |
| Ventura County Flood Control District                                   | 136.13                                              | 99.90                         | 23.25                         | 128.46                         | 387.74 | 58.64                    | 19.78                                        | 466.17                                |
| Southern California Area                                                | 71.58                                               | 52.89                         | 32.01                         | 61.52                          | 218.00 | 31.40                    | 9.77                                         | 259.18                                |
| ALL AREAS                                                               | 47.24                                               | 33.65                         | 19.06                         | 37.05                          | 137.00 | 25.66                    | 6.70                                         | 169.37                                |

a) Hypothetical charges, which, if assessed on all Table A water delivered to date, all surplus water delivered prior to May 1, 1973, and all Table A water estimated to be delivered during the remainder of the project repayment period (Table B-5B), would provide a sum at the end of the period financially equivalent to all Transportation Charge and Delta Water Charge payments required under a water supply contract, considering interest at the Project Interest Rate, 4.608 percent per annum.

**TABLE B-25. Equivalent Unit Transportation Costs of  
Water Delivered From or Through Each Aqueduct Reach <sup>a</sup>**

(in dollars per acre-foot)

| Aqueduct Reach      | Unit Costs of Reach <sup>b</sup> |                                                  |               |                    |                |         | Cumulative Unit Costs from the Delta |                                                  |               |                    |                |        |
|---------------------|----------------------------------|--------------------------------------------------|---------------|--------------------|----------------|---------|--------------------------------------|--------------------------------------------------|---------------|--------------------|----------------|--------|
|                     | Capital Costs                    | Water System Revenue Bond Surcharge <sup>c</sup> | Minimum OMP&R | Off-Aqueduct Costs | Variable OMP&R | Total   | Capital Costs                        | Water System Revenue Bond Surcharge <sup>c</sup> | Minimum OMP&R | Off-Aqueduct Costs | Variable OMP&R | Total  |
|                     | [1]                              | [2]                                              | [3]           | [4]                | [5]            | [6]     | [7]                                  | [8]                                              | [9]           | [10]               | [11]           | [12]   |
| North Bay Aqueduct  |                                  |                                                  |               |                    |                |         |                                      |                                                  |               |                    |                |        |
| 1                   | 39.97                            | 13.26                                            | 11.65         | 1.31               | 3.81           | 70.00   | 39.97                                | 13.26                                            | 11.65         | 1.31               | 3.81           | 70.00  |
| 2                   | 42.54                            | 14.11                                            | 5.09          | 0.00               | 0.00           | 61.74   | 82.51                                | 27.37                                            | 16.74         | 1.31               | 3.81           | 131.74 |
| 3A                  | 7.58                             | 2.51                                             | 10.13         | 2.45               | 6.17           | 28.84   | 90.09                                | 29.88                                            | 26.87         | 3.76               | 9.98           | 160.58 |
| 3B                  | 48.77                            | 16.18                                            | 22.90         | 3.15               | 13.69          | 104.69  | 131.28                               | 43.55                                            | 39.64         | 4.46               | 17.50          | 236.43 |
| South Bay Aqueduct  |                                  |                                                  |               |                    |                |         |                                      |                                                  |               |                    |                |        |
| 1                   | 6.99                             | 2.32                                             | 13.66         | 5.39               | 14.28          | 42.64   | 8.94                                 | 2.97                                             | 16.35         | 7.15               | 20.95          | 56.36  |
| 2                   | 0.66                             | 0.22                                             | 1.54          | 0.00               | 0.00           | 2.42    | 9.60                                 | 3.19                                             | 17.89         | 7.15               | 20.95          | 58.78  |
| 4                   | 2.20                             | 0.73                                             | 2.63          | 0.00               | 0.00           | 5.56    | 11.80                                | 3.92                                             | 20.52         | 7.15               | 20.95          | 64.34  |
| 5                   | 4.61                             | 1.53                                             | 2.06          | 0.00               | 0.00           | 8.20    | 16.41                                | 5.45                                             | 22.58         | 7.15               | 20.95          | 72.54  |
| 6                   | 0.27                             | 0.09                                             | 0.22          | 0.00               | 0.00           | 0.58    | 16.68                                | 5.54                                             | 22.80         | 7.15               | 20.95          | 73.12  |
| 7                   | 2.04                             | 0.68                                             | 0.40          | 0.00               | 0.00           | 3.12    | 18.72                                | 6.22                                             | 23.20         | 7.15               | 20.95          | 76.24  |
| 8                   | 2.77                             | 0.92                                             | 0.66          | 0.00               | 0.00           | 4.35    | 21.49                                | 7.14                                             | 23.86         | 7.15               | 20.95          | 80.59  |
| 9                   | 5.73                             | 1.90                                             | 2.48          | 0.00               | 0.00           | 10.11   | 27.22                                | 9.04                                             | 26.34         | 7.15               | 20.95          | 90.70  |
| California Aqueduct |                                  |                                                  |               |                    |                |         |                                      |                                                  |               |                    |                |        |
| 1                   | 1.95                             | 0.65                                             | 2.69          | 1.76               | 6.67           | 13.72   | 1.95                                 | 0.65                                             | 2.69          | 1.76               | 6.67           | 13.72  |
| 2A                  | 1.24                             | 0.41                                             | 0.53          | 0.00               | 0.00           | 2.18    | 3.19                                 | 1.06                                             | 3.22          | 1.76               | 6.67           | 15.90  |
| 2B                  | 0.64                             | 0.21                                             | 0.27          | 0.00               | 0.00           | 1.12    | 3.83                                 | 1.27                                             | 3.49          | 1.76               | 6.67           | 17.02  |
| 3                   | 0.55                             | 0.18                                             | 0.20          | 0.00               | 0.00           | 0.93    | 4.38                                 | 1.45                                             | 3.69          | 1.76               | 6.67           | 17.95  |
| 4                   | 0.88                             | 0.29                                             | 1.33          | 0.82               | 3.01           | 6.33    | 5.26                                 | 1.74                                             | 5.02          | 2.58               | 9.68           | 24.28  |
| 5                   | 0.68                             | 0.23                                             | 0.27          | 0.00               | 0.00           | 1.18    | 5.94                                 | 1.97                                             | 5.29          | 2.58               | 9.68           | 25.46  |
| 6                   | 0.17                             | 0.06                                             | 0.13          | 0.00               | 0.00           | 0.36    | 6.11                                 | 2.03                                             | 5.42          | 2.58               | 9.68           | 25.82  |
| 7                   | 1.02                             | 0.34                                             | 0.32          | 0.00               | 0.00           | 1.68    | 7.13                                 | 2.37                                             | 5.74          | 2.58               | 9.68           | 27.50  |
| 8C                  | 0.02                             | 0.01                                             | 0.06          | 0.00               | 0.00           | 0.09    | 7.15                                 | 2.38                                             | 5.80          | 2.58               | 9.68           | 27.59  |
| 8D                  | 0.39                             | 0.13                                             | 0.26          | 0.00               | 0.00           | 0.78    | 7.54                                 | 2.51                                             | 6.06          | 2.58               | 9.68           | 28.37  |
| 9                   | 0.33                             | 0.11                                             | 0.24          | 0.00               | 0.00           | 0.68    | 7.87                                 | 2.62                                             | 6.30          | 2.58               | 9.68           | 29.05  |
| 10A                 | 0.35                             | 0.12                                             | 0.31          | 0.00               | 0.00           | 0.78    | 8.22                                 | 2.74                                             | 6.61          | 2.58               | 9.68           | 29.83  |
| 11B                 | 0.51                             | 0.17                                             | 0.20          | 0.00               | 0.00           | 0.88    | 8.73                                 | 2.91                                             | 6.81          | 2.58               | 9.68           | 30.71  |
| 12D                 | 0.48                             | 0.16                                             | 0.18          | 0.00               | 0.00           | 0.82    | 9.21                                 | 3.07                                             | 6.99          | 2.58               | 9.68           | 31.53  |
| 12E                 | 0.34                             | 0.11                                             | 0.30          | 0.00               | 0.00           | 0.75    | 9.55                                 | 3.18                                             | 7.29          | 2.58               | 9.68           | 32.28  |
| 13B                 | 0.73                             | 0.24                                             | 0.35          | 0.00               | 0.00           | 1.32    | 10.28                                | 3.42                                             | 7.64          | 2.58               | 9.68           | 33.60  |
| 14A                 | 2.81                             | 0.93                                             | 2.70          | 1.39               | 5.68           | 13.51   | 13.09                                | 4.35                                             | 10.34         | 3.97               | 15.36          | 47.11  |
| 14B                 | 0.44                             | 0.15                                             | 0.33          | 0.00               | 0.00           | 0.92    | 13.53                                | 4.50                                             | 10.67         | 3.97               | 15.36          | 48.03  |
| 14C                 | 0.37                             | 0.12                                             | 0.25          | 0.00               | 0.00           | 0.74    | 13.90                                | 4.62                                             | 10.92         | 3.97               | 15.36          | 48.77  |
| 15A                 | 2.09                             | 0.69                                             | 2.81          | 1.68               | 6.17           | 13.44   | 15.99                                | 5.31                                             | 13.73         | 5.65               | 21.53          | 62.21  |
| 16A                 | 3.45                             | 1.14                                             | 4.35          | 3.63               | 14.39          | 26.96   | 19.44                                | 6.45                                             | 18.08         | 9.28               | 35.92          | 89.17  |
| 17E                 | 11.65                            | 3.86                                             | 12.23         | 12.70              | 53.14          | 93.58   | 31.09                                | 10.31                                            | 30.31         | 21.98              | 89.06          | 182.75 |
| 17F                 | 3.02                             | 1.00                                             | 0.15          | 0.00               | 0.00           | 4.17    | 34.11                                | 11.31                                            | 30.46         | 21.98              | 89.06          | 186.92 |
| 18A                 | 2.71                             | 0.90                                             | 1.47          | 0.00               | -5.58          | (0.50)  | 36.82                                | 12.21                                            | 31.93         | 21.98              | 83.48          | 186.42 |
| 19                  | 2.00                             | 0.66                                             | 0.89          | 0.00               | 0.00           | 3.55    | 38.82                                | 12.87                                            | 32.82         | 21.98              | 83.48          | 189.97 |
| 19C                 | 2.18                             | 0.72                                             | 0.00          | 0.00               | 0.00           | 2.90    | 41.00                                | 13.59                                            | 32.82         | 21.98              | 83.48          | 192.87 |
| 20A                 | 1.59                             | 0.53                                             | 1.47          | 0.00               | 0.00           | 3.59    | 42.59                                | 14.12                                            | 34.29         | 21.98              | 83.48          | 196.46 |
| 20B                 | 1.93                             | 0.64                                             | 0.97          | 0.00               | 0.00           | 3.54    | 44.52                                | 14.76                                            | 35.26         | 21.98              | 83.48          | 200.00 |
| 21                  | 0.98                             | 0.33                                             | 0.67          | 0.00               | 0.00           | 1.98    | 45.50                                | 15.09                                            | 35.93         | 21.98              | 83.48          | 201.98 |
| 22A                 | 1.02                             | 0.34                                             | 0.35          | 0.00               | 0.00           | 1.71    | 46.52                                | 15.43                                            | 36.28         | 21.98              | 83.48          | 203.69 |
| 22B                 | 9.98                             | 3.31                                             | 9.47          | 4.10               | 17.52          | 44.38   | 56.50                                | 18.74                                            | 45.75         | 26.08              | 101.00         | 248.07 |
| 23                  | 2.74                             | 0.91                                             | 0.65          | 0.00               | -7.12          | (2.82)  | 59.24                                | 19.65                                            | 46.40         | 26.08              | 93.88          | 245.25 |
| 24                  | 5.32                             | 1.76                                             | 1.84          | 0.00               | 0.00           | 8.92    | 64.56                                | 21.41                                            | 48.24         | 26.08              | 93.88          | 254.17 |
| 25                  | 3.88                             | 1.29                                             | 0.10          | 0.00               | 0.00           | 5.27    | 68.44                                | 22.70                                            | 48.34         | 26.08              | 93.88          | 259.44 |
| 26A                 | 4.24                             | 1.41                                             | 6.13          | 0.00               | -48.59         | (36.81) | 72.68                                | 24.11                                            | 54.47         | 26.08              | 45.29          | 222.63 |
| 28G                 | 7.90                             | 2.62                                             | 2.32          | 0.00               | 0.00           | 12.84   | 80.58                                | 26.73                                            | 56.79         | 26.08              | 45.29          | 235.47 |
| 28H                 | 7.60                             | 2.52                                             | 2.43          | 0.00               | 0.00           | 12.55   | 88.18                                | 29.25                                            | 59.22         | 26.08              | 45.29          | 248.02 |
| 28J                 | 85.27                            | 28.28                                            | 33.82         | 0.00               | 0.00           | 147.37  | 173.45                               | 57.53                                            | 93.04         | 26.08              | 45.29          | 395.39 |
| West Branch         |                                  |                                                  |               |                    |                |         |                                      |                                                  |               |                    |                |        |
| 29A                 | 3.95                             | 1.31                                             | 7.02          | 1.56               | 6.24           | 20.08   | 38.06                                | 12.62                                            | 37.48         | 23.54              | 95.30          | 207.00 |
| 29F                 | 2.89                             | 0.96                                             | 0.84          | 0.00               | 0.00           | 4.69    | 40.95                                | 13.58                                            | 38.32         | 23.54              | 95.30          | 211.69 |
| 29G                 | 9.58                             | 3.18                                             | 3.99          | 0.00               | -22.46         | (5.71)  | 50.53                                | 16.76                                            | 42.31         | 23.54              | 72.84          | 205.98 |
| 29H                 | 5.97                             | 1.98                                             | 3.79          | 0.00               | 0.00           | 11.74   | 56.50                                | 18.74                                            | 46.10         | 23.54              | 72.84          | 217.72 |
| 29J                 | 10.01                            | 3.32                                             | 1.09          | 0.00               | -42.01         | (27.59) | 66.51                                | 22.06                                            | 47.19         | 23.54              | 30.83          | 190.13 |
| 30                  | 16.06                            | 5.33                                             | 3.40          | 0.00               | 0.00           | 24.79   | 82.57                                | 27.39                                            | 50.59         | 23.54              | 30.83          | 214.92 |
| Coastal Branch      |                                  |                                                  |               |                    |                |         |                                      |                                                  |               |                    |                |        |
| 31A                 | 7.26                             | 2.41                                             | 16.04         | 1.73               | 5.37           | 32.81   | 14.80                                | 4.92                                             | 22.10         | 4.31               | 15.05          | 61.18  |
| 33A                 | 271.38                           | 90.02                                            | 30.24         | 14.69              | 70.17          | 476.50  | 286.18                               | 94.94                                            | 52.34         | 19.00              | 85.22          | 537.68 |
| 34                  | 193.89                           | 64.31                                            | 0.84          | 0.00               | 0.00           | 259.04  | 480.07                               | 159.25                                           | 53.18         | 19.00              | 85.22          | 796.72 |
| 35                  | 0.00                             | 0.00                                             | 0.00          | 0.00               | 0.00           | 0.00    | 480.07                               | 159.25                                           | 53.18         | 19.00              | 85.22          | 796.72 |

a) Representative of transportation unit costs only; does not include a unit cost of conservation. The Delta Water Rate should be added to these values to approximate unit costs at canalside.

Includes surplus water prior to May 1, 1973.

b) Hypothetical charges which, if assessed on all Table A water delivered to date, all surplus water delivered prior to May 1, 1973, and all Table A water estimated to be delivered during the remainder of the Project repayment period (Table B-5B), would provide a sum at the end of the period financially equivalent to all Transportation Charges required under the water supply contract considering interest rate at the Project Interest Rate of 4.608 percent per annum.

c) The Water System Revenue Bond Surcharge equivalent unit rate is calculated by multiplying Column [1] by the ratio of the 2004 WSRB surcharge to the sum of the Transportation Capital and the Capital component of the Delta Water Charge.



**TABLE B-26. Capital Costs of Each Aqueduct Reach  
to be Reimbursed Through the Capital Cost Component  
of the East Branch Enlargement Transportation Charge**

(in dollars)

Sheet 1 of 2

| Calendar<br>Year | CALIFORNIA AQUEDUCT |           |           |           |           |           |             |            |
|------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|
|                  | MOJAVE DIVISION     |           |           |           |           |           |             |            |
|                  | Reach 18A           | Reach 19  | Reach 20A | Reach 20B | Reach 21  | Reach 22A | Reach 22B   | Reach 23B  |
|                  | [1]                 | [2]       | [3]       | [4]       | [5]       | [6]       | [7]         | [8]        |
| 1952             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1953             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1954             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1955             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1956             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1957             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1958             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1959             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1960             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1961             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1962             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1963             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1964             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1965             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1966             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1967             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1968             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1969             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1970             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1971             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1972             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1973             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1974             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1975             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1976             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1977             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1978             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1979             | 117,000             | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1980             | 200,000             | 0         | 0         | 0         | 0         | 0         | 0           | 74,000     |
| 1981             | 135,000             | 0         | 0         | 0         | 0         | 0         | 0           | 385,000    |
| 1982             | 1,503,000           | 0         | 0         | 0         | 0         | 0         | 0           | 1,586,000  |
| 1983             | 2,260,000           | 0         | 0         | 0         | 0         | 0         | 0           | 2,965,000  |
| 1984             | 735,000             | 0         | 0         | 0         | 0         | 0         | 796,000     | 1,380,000  |
| 1985             | 93,000              | 435,000   | 75,000    | 544,000   | 859,000   | 703,000   | 970,000     | 146,000    |
| 1986             | 784,000             | 4,477,000 | 3,144,000 | 2,234,000 | 1,569,000 | 1,203,000 | 1,808,000   | 34,000     |
| 1987             | 11,000              | 951,000   | 1,076,000 | 666,000   | 399,000   | 47,000    | 16,421,000  | 43,000     |
| 1988             | 1,000               | 125,000   | 1,681,000 | 1,730,000 | 2,024,000 | 40,000    | 13,326,000  | 70,000     |
| 1989             | 0                   | 206,000   | 2,089,000 | 2,174,000 | 2,510,000 | 61,000    | 11,242,000  | 229,000    |
| 1990             | 1,000               | 577,000   | 903,000   | 735,000   | 928,000   | 194,000   | 20,131,000  | 887,000    |
| 1991             | 1,000               | 280,000   | 413,000   | 333,000   | 422,000   | 93,000    | 20,702,000  | 1,215,000  |
| 1992             | 0                   | 40,000    | 41,000    | 39,000    | 35,000    | 13,000    | 9,599,000   | 3,719,000  |
| 1993             | 0                   | 19,000    | 16,000    | 19,000    | 12,000    | 6,000     | 2,319,000   | 19,654,000 |
| 1994             | 0                   | 2,000     | 3,000     | 2,000     | 4,000     | 3,000     | 803,000     | 3,173,000  |
| 1995             | 0                   | 0         | 0         | 0         | 0         | 0         | 223,000     | 1,465,000  |
| 1996             | 0                   | 0         | 0         | 0         | 0         | 0         | 6,014,000   | 478,000    |
| 1997             | 0                   | 0         | 0         | 0         | 0         | 0         | 404,000     | 1,327,000  |
| 1998             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 1999             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| 2000             | 0                   | 0         | 0         | 0         | 0         | 0         | 0           | 0          |
| TOTAL            | 5,841,000           | 7,112,000 | 9,441,000 | 8,476,000 | 8,762,000 | 2,363,000 | 104,758,000 | 38,830,000 |

**TABLE B-26. Capital Costs of Each Aqueduct Reach  
to be Reimbursed Through the Capital Cost Component  
of the East Branch Enlargement Transportation Charge**

(in dollars)

Sheet 2 of 2

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |          |             |                    |             |           |             | GRAND<br>TOTAL |
|------------------|---------------------------------|----------|-------------|--------------------|-------------|-----------|-------------|----------------|
|                  | MOJAVE DIVISION (continued)     |          |             | SANTA ANA DIVISION |             |           |             |                |
|                  | Reach 23C                       | Reach 24 | Total       | Reach 25           | Reach 26A   | Reach 26B | Total       |                |
|                  | [9]                             | [10]     | [11]        | [12]               | [13]        | [14]      | [15]        | [16]           |
| 1952             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1953             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1954             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1955             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1956             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1957             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1958             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1959             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1960             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1961             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1962             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1963             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1964             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1965             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1966             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1967             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1968             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1969             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1970             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1971             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1972             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1973             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1974             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1975             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1976             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1977             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1978             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 1979             | 0                               | 0        | 117,000     | 0                  | 0           | 0         | 0           | 117,000        |
| 1980             | 0                               | 0        | 274,000     | 0                  | 0           | 0         | 0           | 274,000        |
| 1981             | 0                               | 0        | 520,000     | 0                  | 0           | 0         | 0           | 520,000        |
| 1982             | 0                               | 0        | 3,089,000   | 0                  | 0           | 0         | 0           | 3,089,000      |
| 1983             | 0                               | 0        | 5,225,000   | 0                  | 0           | 0         | 0           | 5,225,000      |
| 1984             | 0                               | 0        | 2,911,000   | 0                  | 0           | 0         | 0           | 2,911,000      |
| 1985             | 0                               | 0        | 3,825,000   | 0                  | 528,000     | 89,000    | 617,000     | 4,442,000      |
| 1986             | 25,000                          | 0        | 15,278,000  | 0                  | 1,926,000   | 154,000   | 2,080,000   | 17,358,000     |
| 1987             | 178,000                         | 0        | 19,792,000  | 0                  | 3,699,000   | 437,000   | 4,136,000   | 23,928,000     |
| 1988             | 632,000                         | 0        | 19,629,000  | 0                  | 5,667,000   | 3,329,000 | 8,996,000   | 28,625,000     |
| 1989             | 1,130,000                       | 0        | 19,641,000  | 0                  | 40,879,000  | 1,650,000 | 42,529,000  | 62,170,000     |
| 1990             | 2,066,000                       | 0        | 26,422,000  | 0                  | 29,853,000  | 1,650,000 | 31,503,000  | 57,925,000     |
| 1991             | 4,980,000                       | 0        | 28,439,000  | 0                  | 26,027,000  | 999,000   | 27,026,000  | 55,465,000     |
| 1992             | 11,920,000                      | 0        | 25,406,000  | 0                  | 15,317,000  | 299,000   | 15,616,000  | 41,022,000     |
| 1993             | 16,303,000                      | 0        | 38,348,000  | 0                  | 4,878,000   | 0         | 4,878,000   | 43,226,000     |
| 1994             | 7,081,000                       | 0        | 11,071,000  | 0                  | 3,151,000   | 0         | 3,151,000   | 14,222,000     |
| 1995             | 5,350,000                       | 0        | 7,038,000   | 0                  | 2,137,000   | 0         | 2,137,000   | 9,175,000      |
| 1996             | 1,706,000                       | 0        | 8,198,000   | 0                  | 9,181,000   | 0         | 9,181,000   | 17,379,000     |
| 1997             | 1,905,000                       | 0        | 3,636,000   | 0                  | 175,000     | 0         | 175,000     | 3,811,000      |
| 1998             | 28,000                          | 0        | 28,000      | 0                  | 0           | 0         | 0           | 28,000         |
| 1999             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| 2000             | 0                               | 0        | 0           | 0                  | 0           | 0         | 0           | 0              |
| TOTAL            | 53,304,000                      | 0        | 238,887,000 | 0                  | 143,418,000 | 8,607,000 | 152,025,000 | 390,912,000    |

**TABLE B-27. Minimum OMP&R Costs of Each Aqueduct Reach  
to be Reimbursed Through Minimum OMP&R Component  
of the East Branch Enlargement Transportation Charge**

(in dollars)

Sheet 1 of 2

| Calendar<br>Year | CALIFORNIA AQUEDUCT |          |           |           |          |           |            |           |
|------------------|---------------------|----------|-----------|-----------|----------|-----------|------------|-----------|
|                  | MOJAVE DIVISION     |          |           |           |          |           |            |           |
|                  | Reach 18A           | Reach 19 | Reach 20A | Reach 20B | Reach 21 | Reach 22A | Reach 22B  | Reach 23B |
|                  | [1]                 | [2]      | [3]       | [4]       | [5]      | [6]       | [7]        | [8]       |
| 1971             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1972             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1973             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1974             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1975             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1976             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1977             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1978             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1979             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1980             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1981             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1982             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1983             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1984             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1985             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1986             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1987             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1988             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1989             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1990             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1991             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1992             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1993             | 0                   | 0        | 0         | 0         | 0        | 0         | 0          | 0         |
| 1994             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,048,625  | 0         |
| 1995             | 0                   | 0        | 0         | 0         | 0        | 0         | 953,814    | 0         |
| 1996             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,171,411  | 0         |
| 1997             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,110,038  | 0         |
| 1998             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,213,002  | 0         |
| 1999             | 1,229               | 517      | 646       | 409       | 383      | 169       | 668,466    | 0         |
| 2000             | 4,452               | 1,875    | 2,340     | 1,484     | 1,386    | 614       | 1,315,920  | 0         |
| 2001             | 347                 | 146      | 183       | 116       | 108      | 48        | 1,045,627  | 0         |
| 2002             | 1,639               | 690      | 861       | 546       | 510      | 226       | 1,539,859  | 0         |
| 2003             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,814,089  | 0         |
| 2004             | 2,132               | 27,868   | 18,579    | 18,731    | 10,355   | 8,528     | 1,485,104  | 0         |
| 2005             | 1,205               | 15,752   | 10,502    | 10,588    | 5,853    | 4,820     | 1,045,785  | 0         |
| 2006             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,839,222  | 0         |
| 2007             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,963,545  | 0         |
| 2008             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2009             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2010             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2011             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2012             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2013             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2014             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2015             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2016             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2017             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2018             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2019             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2020             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2021             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2022             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2023             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2024             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2025             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2026             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2027             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2028             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2029             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2030             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2031             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2032             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2033             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2034             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| 2035             | 0                   | 0        | 0         | 0         | 0        | 0         | 1,862,750  | 0         |
| TOTAL            | 11,004              | 46,848   | 33,111    | 31,874    | 18,595   | 14,405    | 70,371,507 | 0         |

**TABLE B-27. Minimum OMP&R Costs of Each Aqueduct Reach  
to be Reimbursed Through Minimum OMP&R Component  
of the East Branch Enlargement Transportation Charge**

(in dollars)

Sheet 2 of 2

| Calendar<br>Year | CALIFORNIA AQUEDUCT (continued) |          |             |                    |                        |           |            | TOTAL       |
|------------------|---------------------------------|----------|-------------|--------------------|------------------------|-----------|------------|-------------|
|                  | MOJAVE DIVISION (continued)     |          |             | SANTA ANA DIVISION |                        |           |            |             |
|                  | Reach 23C                       | Reach 24 | Subtotal    | Reach 25           | Reach 26A <sup>a</sup> | Reach 26B | Subtotal   |             |
|                  | [9]                             | [10]     | [11]        | [12]               | [13]                   | [14]      | [15]       | [16]        |
| 1971             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1972             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1973             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1974             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1975             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1976             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1977             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1978             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1979             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1980             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1981             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1982             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1983             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1984             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1985             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1986             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1987             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1988             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1989             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1990             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1991             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1992             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1993             | 0                               | 0        | 0           | 0                  | 0                      | 0         | 0          | 0           |
| 1994             | 0                               | 0        | 1,048,625   | 0                  | 1,713,260              | 0         | 1,713,260  | 2,761,885   |
| 1995             | 0                               | 0        | 953,814     | 0                  | 1,452,549              | 0         | 1,452,549  | 2,406,363   |
| 1996             | 0                               | 0        | 1,171,411   | 0                  | 1,350,581              | 0         | 1,350,581  | 2,521,992   |
| 1997             | 679,826                         | 0        | 1,789,864   | 0                  | 1,528,509              | 0         | 1,528,509  | 3,318,373   |
| 1998             | 825,038                         | 0        | 2,038,040   | 0                  | 1,619,068              | 0         | 1,619,068  | 3,657,108   |
| 1999             | 382,178                         | 0        | 1,053,997   | 0                  | 956,229                | 0         | 956,229    | 2,010,226   |
| 2000             | 735,803                         | 0        | 2,063,874   | 0                  | 1,409,109              | 0         | 1,409,109  | 3,472,983   |
| 2001             | 812,634                         | 0        | 1,859,209   | 0                  | 811,400                | 0         | 811,400    | 2,670,609   |
| 2002             | 727,751                         | 0        | 2,272,082   | 0                  | 1,143,205              | 0         | 1,143,205  | 3,415,287   |
| 2003             | 899,739                         | 0        | 2,713,828   | 0                  | 1,248,051              | 0         | 1,248,051  | 3,961,879   |
| 2004             | 913,701                         | 0        | 2,484,998   | 0                  | 1,815,458              | 0         | 1,815,458  | 4,300,456   |
| 2005             | 1,036,550                       | 0        | 2,131,055   | 0                  | 1,862,342              | 0         | 1,862,342  | 3,993,397   |
| 2006             | 1,091,151                       | 0        | 2,930,373   | 0                  | 1,899,216              | 0         | 1,899,216  | 4,829,589   |
| 2007             | 1,117,178                       | 0        | 3,080,723   | 0                  | 1,943,971              | 0         | 1,943,971  | 5,024,694   |
| 2008             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2009             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2010             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2011             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2012             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2013             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2014             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2015             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2016             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2017             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2018             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2019             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2020             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2021             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2022             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2023             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2024             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2025             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2026             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2027             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2028             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2029             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2030             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2031             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2032             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2033             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2034             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| 2035             | 1,109,728                       | 0        | 2,972,478   | 0                  | 1,995,971              | 0         | 1,995,971  | 4,968,449   |
| TOTAL            | 40,293,933                      | 0        | 110,821,277 | 0                  | 76,640,136             | 0         | 76,640,136 | 187,461,413 |

a) Units 3 and 4 at Devil Canyon Powerplant were operational in 1993. These minimum OMP&R costs for Reach 26A will be revised to reflect operational date of those units.

**TABLE B-28. Capital Costs of East Branch Enlargement  
Transportation Facilities Allocated to Each Contractor**

(in dollars)

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                          |                           |                           |                               |                                                            |                                                                    | Total       |
|------------------|-----------------------------------------------------|------------------------------------------|---------------------------|---------------------------|-------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|-------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Desert<br>Water<br>Agency | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | The<br>Metropolitan<br>Water District<br>of Southern<br>California |             |
|                  | [1]                                                 | [2]                                      | [3]                       | [4]                       | [5]                           | [6]                                                        | [7]                                                                | [8]         |
| 1971             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1972             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1973             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1974             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1975             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1976             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1977             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1978             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1979             | 0                                                   | 11,731                                   | 1,010                     | 10,566                    | 466                           | 0                                                          | 93,227                                                             | 117,000     |
| 1980             | 0                                                   | 28,241                                   | 4,708                     | 27,495                    | 797                           | 0                                                          | 212,759                                                            | 274,000     |
| 1981             | 0                                                   | 56,134                                   | 16,676                    | 61,271                    | 538                           | 0                                                          | 385,381                                                            | 520,000     |
| 1982             | 0                                                   | 326,180                                  | 76,872                    | 337,913                   | 5,988                         | 0                                                          | 2,342,047                                                          | 3,089,000   |
| 1983             | 0                                                   | 554,658                                  | 138,964                   | 582,070                   | 9,004                         | 0                                                          | 3,940,304                                                          | 5,225,000   |
| 1984             | 0                                                   | 306,514                                  | 68,842                    | 314,468                   | 2,928                         | 0                                                          | 2,218,248                                                          | 2,911,000   |
| 1985             | 49,675                                              | 447,266                                  | 65,773                    | 347,262                   | 4,514                         | 21,614                                                     | 3,505,896                                                          | 4,442,000   |
| 1986             | 185,353                                             | 1,757,633                                | 236,324                   | 1,363,586                 | 41,900                        | 78,842                                                     | 13,694,362                                                         | 17,358,000  |
| 1987             | 49,735                                              | 2,455,279                                | 378,535                   | 1,774,447                 | 10,615                        | 151,421                                                    | 19,107,968                                                         | 23,928,000  |
| 1988             | 124,534                                             | 2,689,959                                | 500,466                   | 1,712,431                 | 13,783                        | 231,982                                                    | 23,351,845                                                         | 28,625,000  |
| 1989             | 155,446                                             | 7,118,094                                | 2,423,000                 | 1,671,088                 | 17,419                        | 1,673,409                                                  | 49,111,544                                                         | 62,170,000  |
| 1990             | 62,786                                              | 6,459,229                                | 1,943,918                 | 2,234,452                 | 8,680                         | 1,222,053                                                  | 45,993,882                                                         | 57,925,000  |
| 1991             | 28,686                                              | 6,265,822                                | 1,875,066                 | 2,168,712                 | 4,024                         | 1,065,433                                                  | 44,057,257                                                         | 55,465,000  |
| 1992             | 2,911                                               | 4,826,764                                | 1,610,921                 | 1,359,335                 | 471                           | 627,012                                                    | 32,594,586                                                         | 41,022,000  |
| 1993             | 1,205                                               | 5,094,237                                | 1,828,410                 | 2,722,156                 | 212                           | 199,684                                                    | 33,380,096                                                         | 43,226,000  |
| 1994             | 273                                                 | 1,726,376                                | 631,816                   | 478,543                   | 27                            | 128,988                                                    | 11,255,977                                                         | 14,222,000  |
| 1995             | 0                                                   | 1,130,963                                | 423,243                   | 206,978                   | 0                             | 87,480                                                     | 7,326,336                                                          | 9,175,000   |
| 1996             | 0                                                   | 2,025,987                                | 645,296                   | 606,205                   | 0                             | 375,830                                                    | 13,725,682                                                         | 17,379,000  |
| 1997             | 0                                                   | 451,011                                  | 154,366                   | 205,796                   | 0                             | 7,164                                                      | 2,992,663                                                          | 3,811,000   |
| 1998             | 0                                                   | 3,551                                    | 1,293                     | 0                         | 0                             | 0                                                          | 23,156                                                             | 28,000      |
| 1999             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 2000             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| TOTAL            | 660,604                                             | 43,735,629                               | 13,025,499                | 18,184,774                | 121,366                       | 5,870,912                                                  | 309,313,216                                                        | 390,912,000 |

**TABLE B-29. Capital Cost Component of East Branch Enlargement  
Facilities Transportation Charge for Each Contractor**

(in dollars)

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                          |                                          |                           |                           |                               |                                                                      |                                                                 | Total         |
|------------------|---------------------------------------------------|------------------------------------------|---------------------------|---------------------------|-------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|---------------|
|                  | Antelope<br>Valley -<br>East Kern<br>Water Agency | Coachella<br>Valley<br>Water<br>District | Desert<br>Water<br>Agency | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley Municipal<br>Water District <sup>a</sup> | The Metropolitan<br>Water District<br>of Southern<br>California |               |
|                  | [1]                                               | [2]                                      | [3]                       | [4]                       | [5]                           | [6]                                                                  | [7]                                                             | [8]           |
| 1971             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1972             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1973             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1974             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1975             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1976             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1977             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1978             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1979             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1980             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1981             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1982             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1983             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1984             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1985             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1986             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1987             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 1988             | 18,266                                            | 1,209,293                                | 360,156                   | 502,810                   | 3,356                         | 0                                                                    | 8,552,529                                                       | 10,646,410    |
| 1989             | 19,175                                            | 1,269,524                                | 378,094                   | 527,854                   | 3,523                         | 0                                                                    | 8,978,504                                                       | 11,176,674    |
| 1990             | 19,186                                            | 1,270,244                                | 378,308                   | 528,153                   | 3,525                         | 0                                                                    | 8,983,597                                                       | 11,183,013    |
| 1991             | 19,187                                            | 1,270,261                                | 378,314                   | 528,160                   | 3,525                         | 0                                                                    | 8,983,717                                                       | 11,183,164    |
| 1992             | 38,420                                            | 2,543,616                                | 757,549                   | 1,057,606                 | 7,059                         | 0                                                                    | 17,989,315                                                      | 22,393,565    |
| 1993             | 40,122                                            | 2,662,533                                | 793,256                   | 1,105,728                 | 7,371                         | 0                                                                    | 18,827,641                                                      | 23,436,651    |
| 1994             | 39,705                                            | 2,628,706                                | 782,890                   | 1,092,986                 | 7,295                         | 0                                                                    | 18,591,099                                                      | 23,142,681    |
| 1995             | 39,632                                            | 2,623,828                                | 781,438                   | 1,090,958                 | 7,281                         | 0                                                                    | 18,556,603                                                      | 23,099,740    |
| 1996             | 39,856                                            | 2,639,103                                | 786,038                   | 1,097,172                 | 7,323                         | 0                                                                    | 18,664,309                                                      | 23,233,801    |
| 1997             | 41,743                                            | 2,763,629                                | 823,074                   | 1,149,085                 | 7,669                         | 0                                                                    | 19,545,322                                                      | 24,330,522    |
| 1998             | 42,642                                            | 2,823,126                                | 840,793                   | 1,173,823                 | 7,834                         | 0                                                                    | 19,966,107                                                      | 24,854,325    |
| 1999             | 44,738                                            | 2,961,887                                | 882,120                   | 1,231,519                 | 8,219                         | 0                                                                    | 20,947,475                                                      | 26,075,958    |
| 2000             | 49,031                                            | 3,246,109                                | 966,768                   | 1,349,695                 | 9,008                         | 0                                                                    | 22,957,586                                                      | 28,578,197    |
| 2001             | 49,048                                            | 3,247,263                                | 967,111                   | 1,350,175                 | 9,011                         | 0                                                                    | 22,965,748                                                      | 28,588,356    |
| 2002             | 47,729                                            | 3,159,931                                | 941,102                   | 1,313,862                 | 8,769                         | 0                                                                    | 22,348,105                                                      | 27,819,498    |
| 2003             | 40,383                                            | 2,662,845                                | 792,431                   | 1,109,474                 | 7,418                         | 0                                                                    | 18,837,475                                                      | 23,450,026    |
| 2004             | 43,914                                            | 2,907,364                                | 865,881                   | 1,208,849                 | 8,068                         | 0                                                                    | 20,561,864                                                      | 25,595,940    |
| 2005             | 32,275                                            | 2,136,768                                | 636,380                   | 888,444                   | 5,929                         | 0                                                                    | 15,111,947                                                      | 18,811,743    |
| 2006             | 53,494                                            | 3,625,410                                | 1,090,816                 | 1,472,551                 | 9,828                         | 0                                                                    | 25,568,477                                                      | 31,820,576    |
| 2007             | 67,152                                            | 4,549,811                                | 1,368,792                 | 1,848,518                 | 12,337                        | 0                                                                    | 32,088,918                                                      | 39,935,528    |
| 2008             | 63,426                                            | 4,294,213                                | 1,291,490                 | 1,745,954                 | 11,653                        | 0                                                                    | 30,288,880                                                      | 37,695,616    |
| 2009             | 64,886                                            | 4,402,364                                | 1,325,221                 | 1,786,139                 | 11,921                        | 0                                                                    | 31,043,916                                                      | 38,634,447    |
| 2010             | 64,638                                            | 4,369,374                                | 1,313,198                 | 1,779,328                 | 11,876                        | 0                                                                    | 30,824,799                                                      | 38,363,213    |
| 2011             | 66,186                                            | 4,495,818                                | 1,354,017                 | 1,821,963                 | 12,159                        | 0                                                                    | 31,698,616                                                      | 39,448,759    |
| 2012             | 66,292                                            | 4,502,964                                | 1,356,182                 | 1,824,822                 | 12,179                        | 0                                                                    | 31,748,937                                                      | 39,511,376    |
| 2013             | 65,590                                            | 4,447,846                                | 1,338,611                 | 1,805,535                 | 12,049                        | 0                                                                    | 31,366,580                                                      | 39,036,211    |
| 2014             | 66,192                                            | 4,466,570                                | 1,341,392                 | 1,822,113                 | 12,161                        | 0                                                                    | 31,517,083                                                      | 39,225,511    |
| 2015             | 67,935                                            | 4,584,990                                | 1,377,059                 | 1,870,091                 | 12,481                        | 0                                                                    | 32,351,999                                                      | 40,264,555    |
| 2016             | 68,121                                            | 4,597,374                                | 1,380,759                 | 1,875,207                 | 12,516                        | 0                                                                    | 32,439,514                                                      | 40,373,491    |
| 2017             | 69,782                                            | 4,710,625                                | 1,414,919                 | 1,920,940                 | 12,822                        | 0                                                                    | 33,237,674                                                      | 41,366,762    |
| 2018             | 68,169                                            | 4,599,566                                | 1,381,283                 | 1,876,526                 | 12,525                        | 0                                                                    | 32,455,860                                                      | 40,393,929    |
| 2019             | 70,046                                            | 4,732,262                                | 1,421,907                 | 1,928,227                 | 12,868                        | 0                                                                    | 33,387,185                                                      | 41,552,495    |
| 2020             | 67,201                                            | 4,531,071                                | 1,360,289                 | 1,849,913                 | 12,347                        | 0                                                                    | 31,975,270                                                      | 39,796,091    |
| 2021             | 68,717                                            | 4,635,694                                | 1,392,023                 | 1,891,612                 | 12,624                        | 0                                                                    | 32,711,490                                                      | 40,712,160    |
| 2022             | 68,003                                            | 4,595,810                                | 1,381,133                 | 1,871,915                 | 12,494                        | 0                                                                    | 32,423,016                                                      | 40,352,371    |
| 2023             | 56,498                                            | 3,833,714                                | 1,154,094                 | 1,555,264                 | 10,380                        | 0                                                                    | 27,033,673                                                      | 33,643,623    |
| 2024             | 58,473                                            | 3,965,053                                | 1,193,302                 | 1,609,579                 | 10,743                        | 0                                                                    | 27,961,930                                                      | 34,799,080    |
| 2025             | 66,907                                            | 4,524,191                                | 1,359,911                 | 1,841,799                 | 12,293                        | 0                                                                    | 31,915,814                                                      | 39,720,915    |
| 2026             | 24,538                                            | 1,703,639                                | 517,840                   | 675,475                   | 4,508                         | 0                                                                    | 11,981,129                                                      | 14,907,129    |
| 2027             | 25,000                                            | 1,731,166                                | 525,631                   | 688,200                   | 4,593                         | 0                                                                    | 12,178,439                                                      | 15,153,029    |
| 2028             | 16,319                                            | 1,120,310                                | 338,928                   | 449,230                   | 2,998                         | 0                                                                    | 7,889,128                                                       | 9,816,913     |
| 2029             | 17,026                                            | 1,166,423                                | 352,574                   | 468,679                   | 3,128                         | 0                                                                    | 8,215,818                                                       | 10,223,648    |
| 2030             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 2031             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 2032             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 2033             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 2034             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| 2035             | 0                                                 | 0                                        | 0                         | 0                         | 0                             | 0                                                                    | 0                                                               | 0             |
| TOTAL            | 2,055,643                                         | 138,212,288                              | 41,443,074                | 56,585,933                | 377,666                       | 0                                                                    | 975,673,088                                                     | 1,214,347,692 |

a) Under Article 49(d)(4)(A) of its contract, San Bernardino Valley Municipal Water District elected to pay a portion of its allocated costs of East Branch Enlargement in advance rather than to participate in payment of Water System Revenue Bonds. This election made via a letter of agreement signed June 1, 1987. As of June 1999, \$6,347,938 has been received from the San Bernardino Valley Municipal Water District.

**TABLE B-30. Minimum OMP&R Component of East Branch Enlargement  
Facilities Transportation Charge for Each Contractor**

(in dollars)

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                         |                                          |                           |                           |                               |                                                            |                                                                    | Total       |
|------------------|--------------------------------------------------|------------------------------------------|---------------------------|---------------------------|-------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|-------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water Agency | Coachella<br>Valley<br>Water<br>District | Desert<br>Water<br>Agency | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San<br>Bernardino<br>Valley<br>Municipal<br>Water District | The<br>Metropolitan<br>Water District<br>of Southern<br>California |             |
|                  | [1]                                              | [2]                                      | [3]                       | [4]                       | [5]                           | [6]                                                        | [7]                                                                | [8]         |
| 1971             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1972             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1973             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1974             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1975             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1976             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1977             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1978             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1979             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1980             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1981             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1982             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1983             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1984             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1985             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1986             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1987             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1988             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1989             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1990             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1991             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1992             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1993             | 0                                                | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0           |
| 1994             | 0                                                | 320,415                                  | 101,486                   | 95,075                    | 0                             | 70,133                                                     | 2,174,776                                                          | 2,761,885   |
| 1995             | 0                                                | 278,176                                  | 86,604                    | 86,479                    | 0                             | 59,461                                                     | 1,895,643                                                          | 2,406,363   |
| 1996             | 0                                                | 287,293                                  | 82,991                    | 106,208                   | 0                             | 55,287                                                     | 1,990,213                                                          | 2,521,992   |
| 1997             | 0                                                | 389,636                                  | 123,446                   | 100,643                   | 0                             | 62,571                                                     | 2,642,077                                                          | 3,318,373   |
| 1998             | 0                                                | 429,772                                  | 135,927                   | 109,979                   | 0                             | 66,278                                                     | 2,915,152                                                          | 3,657,108   |
| 1999             | 37                                               | 236,006                                  | 75,040                    | 60,907                    | 11                            | 39,144                                                     | 1,599,081                                                          | 2,010,226   |
| 2000             | 132                                              | 403,693                                  | 121,479                   | 120,396                   | 40                            | 57,683                                                     | 2,769,559                                                          | 3,472,982   |
| 2001             | 10                                               | 310,158                                  | 90,353                    | 94,888                    | 3                             | 33,215                                                     | 2,141,981                                                          | 2,670,608   |
| 2002             | 49                                               | 391,107                                  | 108,642                   | 140,014                   | 15                            | 46,798                                                     | 2,728,663                                                          | 3,415,288   |
| 2003             | 0                                                | 453,227                                  | 124,576                   | 164,477                   | 0                             | 51,090                                                     | 3,168,508                                                          | 3,961,878   |
| 2004             | 1,278                                            | 501,557                                  | 153,704                   | 142,324                   | 265                           | 74,317                                                     | 3,427,009                                                          | 4,300,454   |
| 2005             | 722                                              | 475,085                                  | 157,779                   | 99,156                    | 150                           | 76,236                                                     | 3,184,268                                                          | 3,993,396   |
| 2006             | 0                                                | 561,690                                  | 168,751                   | 166,756                   | 0                             | 77,746                                                     | 3,854,647                                                          | 4,829,590   |
| 2007             | 0                                                | 583,118                                  | 173,444                   | 178,028                   | 0                             | 79,578                                                     | 4,010,527                                                          | 5,024,695   |
| 2008             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2009             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2010             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2011             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2012             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2013             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2014             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2015             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2016             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2017             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2018             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2019             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2020             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2021             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2022             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2023             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2024             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2025             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2026             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2027             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2028             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2029             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2030             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2031             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2032             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2033             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2034             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| 2035             | 0                                                | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448   |
| TOTAL            | 2228                                             | 21,820,249                               | 6,605,090                 | 6,394,222                 | 484                           | 3,137,305                                                  | 149,501,804                                                        | 187,461,382 |

**TABLE B-31. Total East Branch Enlargement Facilities  
Transportation Charge for Each Contractor**

(in dollars)

| Calendar<br>Year | SOUTHERN CALIFORNIA AREA                            |                                          |                           |                           |                               |                                                            |                                                                    | Total         |
|------------------|-----------------------------------------------------|------------------------------------------|---------------------------|---------------------------|-------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|---------------|
|                  | Antelope<br>Valley-<br>East Kern<br>Water<br>Agency | Coachella<br>Valley<br>Water<br>District | Desert<br>Water<br>Agency | Mojave<br>Water<br>Agency | Palmdale<br>Water<br>District | San Bernardino<br>Valley<br>Municipal<br>Water<br>District | The<br>Metropolitan<br>Water District<br>of Southern<br>California |               |
|                  | [1]                                                 | [2]                                      | [3]                       | [4]                       | [5]                           | [6]                                                        | [7]                                                                | [8]           |
| 1971             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1972             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1973             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1974             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1975             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1976             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1977             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1978             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1979             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1980             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1981             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1982             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1983             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1984             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1985             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1986             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1987             | 0                                                   | 0                                        | 0                         | 0                         | 0                             | 0                                                          | 0                                                                  | 0             |
| 1988             | 18,266                                              | 1,209,293                                | 360,156                   | 502,810                   | 3,356                         | 0                                                          | 8,552,529                                                          | 10,646,410    |
| 1989             | 19,176                                              | 1,269,524                                | 378,094                   | 527,854                   | 3,523                         | 0                                                          | 8,978,504                                                          | 11,176,675    |
| 1990             | 19,186                                              | 1,270,244                                | 378,308                   | 528,153                   | 3,525                         | 0                                                          | 8,983,597                                                          | 11,183,013    |
| 1991             | 19,187                                              | 1,270,261                                | 378,314                   | 528,160                   | 3,525                         | 0                                                          | 8,983,717                                                          | 11,183,164    |
| 1992             | 38,420                                              | 2,543,616                                | 757,549                   | 1,057,606                 | 7,059                         | 0                                                          | 17,989,315                                                         | 22,393,565    |
| 1993             | 40,122                                              | 2,662,533                                | 793,256                   | 1,105,728                 | 7,371                         | 0                                                          | 18,827,641                                                         | 23,436,651    |
| 1994             | 39,705                                              | 2,949,121                                | 884,376                   | 1,188,061                 | 7,295                         | 70,133                                                     | 20,765,875                                                         | 25,904,566    |
| 1995             | 39,632                                              | 2,902,004                                | 868,042                   | 1,177,437                 | 7,281                         | 59,461                                                     | 20,452,246                                                         | 25,506,103    |
| 1996             | 39,856                                              | 2,926,396                                | 869,029                   | 1,203,380                 | 7,323                         | 55,287                                                     | 20,654,522                                                         | 25,755,793    |
| 1997             | 41,743                                              | 3,153,265                                | 946,520                   | 1,249,728                 | 7,669                         | 62,571                                                     | 22,187,399                                                         | 27,648,895    |
| 1998             | 42,642                                              | 3,252,898                                | 976,720                   | 1,283,802                 | 7,834                         | 66,278                                                     | 22,881,259                                                         | 28,511,433    |
| 1999             | 44,775                                              | 3,197,893                                | 957,160                   | 1,292,426                 | 8,230                         | 39,144                                                     | 22,546,556                                                         | 28,086,184    |
| 2000             | 49,163                                              | 3,649,802                                | 1,088,247                 | 1,470,090                 | 9,048                         | 57,683                                                     | 25,727,147                                                         | 32,051,180    |
| 2001             | 49,058                                              | 3,557,421                                | 1,057,465                 | 1,445,063                 | 9,014                         | 33,215                                                     | 25,107,729                                                         | 31,258,965    |
| 2002             | 47,778                                              | 3,551,037                                | 1,049,744                 | 1,453,876                 | 8,784                         | 46,798                                                     | 25,076,769                                                         | 31,234,786    |
| 2003             | 40,383                                              | 3,116,071                                | 917,007                   | 1,273,952                 | 7,418                         | 51,090                                                     | 22,005,983                                                         | 27,411,904    |
| 2004             | 45,192                                              | 3,408,921                                | 1,019,585                 | 1,351,173                 | 8,333                         | 74,317                                                     | 23,988,874                                                         | 29,896,395    |
| 2005             | 32,997                                              | 2,611,853                                | 794,159                   | 987,600                   | 6,078                         | 76,236                                                     | 18,296,215                                                         | 22,805,138    |
| 2006             | 53,494                                              | 4,187,099                                | 1,259,566                 | 1,639,307                 | 9,828                         | 77,746                                                     | 29,423,124                                                         | 36,650,164    |
| 2007             | 67,152                                              | 5,132,928                                | 1,542,235                 | 2,026,546                 | 12,337                        | 79,578                                                     | 36,099,445                                                         | 44,960,221    |
| 2008             | 63,426                                              | 4,872,761                                | 1,466,521                 | 1,914,844                 | 11,653                        | 81,706                                                     | 34,253,155                                                         | 42,664,066    |
| 2009             | 64,886                                              | 4,980,911                                | 1,500,251                 | 1,955,027                 | 11,921                        | 81,706                                                     | 35,008,191                                                         | 43,602,893    |
| 2010             | 64,638                                              | 4,947,921                                | 1,488,229                 | 1,948,217                 | 11,876                        | 81,706                                                     | 34,789,076                                                         | 43,331,663    |
| 2011             | 66,186                                              | 5,074,365                                | 1,529,048                 | 1,990,851                 | 12,159                        | 81,706                                                     | 35,662,891                                                         | 44,417,206    |
| 2012             | 66,292                                              | 5,081,511                                | 1,531,212                 | 1,993,711                 | 12,179                        | 81,706                                                     | 35,713,212                                                         | 44,479,823    |
| 2013             | 65,590                                              | 5,026,393                                | 1,513,642                 | 1,974,423                 | 12,049                        | 81,706                                                     | 35,330,855                                                         | 44,004,658    |
| 2014             | 66,192                                              | 5,045,117                                | 1,516,422                 | 1,991,002                 | 12,161                        | 81,706                                                     | 35,481,359                                                         | 44,193,959    |
| 2015             | 67,934                                              | 5,163,538                                | 1,552,090                 | 2,038,981                 | 12,481                        | 81,706                                                     | 36,316,275                                                         | 45,233,005    |
| 2016             | 68,121                                              | 5,175,922                                | 1,555,790                 | 2,044,097                 | 12,516                        | 81,706                                                     | 36,403,789                                                         | 45,341,941    |
| 2017             | 69,782                                              | 5,289,172                                | 1,589,949                 | 2,089,830                 | 12,821                        | 81,706                                                     | 37,201,950                                                         | 46,335,210    |
| 2018             | 68,169                                              | 5,178,114                                | 1,556,313                 | 2,045,414                 | 12,524                        | 81,706                                                     | 36,420,136                                                         | 45,362,376    |
| 2019             | 70,046                                              | 5,310,809                                | 1,596,937                 | 2,097,115                 | 12,869                        | 81,706                                                     | 37,351,460                                                         | 46,520,942    |
| 2020             | 67,201                                              | 5,109,618                                | 1,535,320                 | 2,018,803                 | 12,347                        | 81,706                                                     | 35,939,545                                                         | 44,764,540    |
| 2021             | 68,717                                              | 5,214,241                                | 1,567,052                 | 2,060,501                 | 12,625                        | 81,706                                                     | 36,675,766                                                         | 45,680,608    |
| 2022             | 68,003                                              | 5,174,357                                | 1,556,164                 | 2,040,804                 | 12,494                        | 81,706                                                     | 36,387,291                                                         | 45,320,819    |
| 2023             | 56,498                                              | 4,412,262                                | 1,329,124                 | 1,724,153                 | 10,380                        | 81,706                                                     | 30,997,948                                                         | 38,612,071    |
| 2024             | 58,473                                              | 4,543,598                                | 1,368,333                 | 1,778,468                 | 10,743                        | 81,706                                                     | 31,926,205                                                         | 39,767,526    |
| 2025             | 66,907                                              | 5,102,739                                | 1,534,942                 | 2,010,688                 | 12,293                        | 81,706                                                     | 35,880,090                                                         | 44,689,365    |
| 2026             | 24,538                                              | 2,282,187                                | 692,870                   | 844,365                   | 4,508                         | 81,706                                                     | 15,945,406                                                         | 19,875,580    |
| 2027             | 25,000                                              | 2,309,713                                | 700,661                   | 857,090                   | 4,593                         | 81,706                                                     | 16,142,714                                                         | 20,121,477    |
| 2028             | 16,319                                              | 1,698,858                                | 513,959                   | 618,120                   | 2,998                         | 81,706                                                     | 11,853,404                                                         | 14,785,364    |
| 2029             | 17,026                                              | 1,744,970                                | 527,604                   | 637,568                   | 3,128                         | 81,706                                                     | 12,180,094                                                         | 15,192,096    |
| 2030             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| 2031             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| 2032             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| 2033             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| 2034             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| 2035             | 0                                                   | 578,547                                  | 175,031                   | 168,889                   | 0                             | 81,706                                                     | 3,964,275                                                          | 4,968,448     |
| TOTAL            | 2,057,871                                           | 160,032,539                              | 48,048,151                | 62,980,158                | 378,149                       | 3,137,305                                                  | 1,125,174,908                                                      | 1,401,809,081 |



| CONVERSION FACTORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                       |                            |                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------|----------------------------|-------------------------------------------------------|
| Quantity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | To convert from customary unit             | To metric unit                                                        | Multiply customary unit by | To convert to customary unit, multiply metric unit by |
| Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | inches (in)                                | millimeters (mm)●                                                     | 25.4                       | 0.03937                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | inches (in)                                | centimeters (cm)                                                      | 2.54                       | 0.3937                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | feet (ft)                                  | meters (m)                                                            | 0.3048                     | 3.2808                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | miles (mi)                                 | kilometers (km)                                                       | 1.6093                     | 0.62139                                               |
| Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | square inches (in <sup>2</sup> )           | square millimeters (mm <sup>2</sup> )                                 | 645.16                     | 0.00155                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | square feet (ft <sup>2</sup> )             | square meters (m <sup>2</sup> )                                       | 0.092903                   | 10.764                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | acres (ac)                                 | hectares (ha)                                                         | 0.40469                    | 2.4710                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | square miles (mi <sup>2</sup> )            | square kilometers (km <sup>2</sup> )                                  | 2.590                      | 0.3861                                                |
| Volume                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | gallons (gal)                              | liters (L)                                                            | 3.7854                     | 0.26417                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | million gallons (10 <sup>6</sup> gal)      | megaliters (ML)                                                       | 3.7854                     | 0.26417                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | cubic feet (ft <sup>3</sup> )              | cubic meters (m <sup>3</sup> )                                        | 0.028317                   | 35.315                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | cubic yards (yd <sup>3</sup> )             | cubic meters (m <sup>3</sup> )                                        | 0.76455                    | 1.308                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | acre-feet (ac-ft)                          | thousand cubic meters (m <sup>3</sup> x 10 <sup>3</sup> )             | 1.2335                     | 0.8107                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | acre-feet (ac-ft)                          | hectare-meters (ha - m)■                                              | 0.1234                     | 8.107                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | thousand acre-feet (taf)                   | million cubic meters (m <sup>3</sup> x 10 <sup>6</sup> )              | 1.2335                     | 0.8107                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | thousand acre-feet (taf)                   | hectare-meters (ha - m)■                                              | 123.35                     | 0.008107                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | million acre-feet (maf)                    | billion cubic meters (m <sup>3</sup> x 10 <sup>9</sup> )◆             | 1.2335                     | 0.8107                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | million acre-feet (maf)                    | cubic kilometers (km <sup>3</sup> )                                   | 1.2335                     | 0.8107                                                |
| Flow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | cubic feet per second (ft <sup>3</sup> /s) | cubic meters per second (m <sup>3</sup> /s)                           | 0.028317                   | 35.315                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | gallons per minute (gal/min)               | liters per minute (L/min)                                             | 3.7854                     | 0.26417                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | gallons per day (gal/day)                  | liters per day (L/day)                                                | 3.7854                     | 0.26417                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | million gallons per day (mgd)              | megaliters per day (ML/day)                                           | 3.7854                     | 0.26417                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | acre-feet per day (ac-ft/day)              | thousand cubic meters per day (m <sup>3</sup> x 10 <sup>3</sup> /day) | 1.2335                     | 0.8107                                                |
| Mass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | pounds (lb)                                | kilograms (kg)                                                        | 0.45359                    | 2.2046                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | tons (short, 2,000 lb)                     | megagrams (Mg)                                                        | 0.90718                    | 1.1023                                                |
| Velocity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | feet per second (ft/s)                     | meters per second (m/s)                                               | 0.3048                     | 3.2808                                                |
| Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | horsepower (hp)                            | kilowatts (kW)                                                        | 0.746                      | 1.3405                                                |
| Pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | pounds per square inch (psi)               | kilopascals (kPa)                                                     | 6.8948                     | 0.14505                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | head of water in feet                      | kilopascals (kPa)                                                     | 2.989                      | 0.33456                                               |
| Specific capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | gallons per minute per foot of drawdown    | liters per minute per meter of drawdown                               | 12.419                     | 0.08052                                               |
| Concentration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | parts per million (ppm)                    | milligrams per liter (mg/L)                                           | 1.0                        | 1.0                                                   |
| Electrical conductivity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | micromhos per centimeter                   | millisiemens per centimeter (μS/cm)                                   | 1.0                        | 1.0                                                   |
| Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | degrees Fahrenheit (°F)                    | degrees Celsius (°C)                                                  | (°F - 32)/1.8              | (1.8 x °C) + 32                                       |
| <div>● When using “dual units,” inches are normally converted to millimeters (rather than centimeters).</div> <div>■ Not used often in metric countries, but is offered as a conceptual equivalent of customary western U.S. practice (a standard depth of water over a given area of land).</div> <div>◆ ASTM Manual E380 discourages the use of billion cubic meters since that magnitude is represented by giga (a thousand million) in other countries. It is shown here for potential use for quantifying large reservoir volumes (similar to million acre-feet).</div> |                                            |                                                                       |                            |                                                       |
| OTHER COMMON CONVERSION FACTORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                            |                                                                       |                            |                                                       |
| 1 cubic foot=7.48 gallons=62.4 pounds of water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                            | 1 acre-foot=325,900 gallons=43,560 cubic feet                         |                            |                                                       |
| 1 cubic foot per second (cfs)=450 gallons per minute (gpm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                            | 1 million gallons=3.07 acre-feet                                      |                            |                                                       |
| 1 cfs=646,320 gallons a day=1.98 ac-ft a day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                            | 1 million gallons a day (mgd)=1,120 ac-ft a year                      |                            |                                                       |