

3.0 COMMENT LETTERS AND RESPONSES

COMMENTS RECEIVED ON THE ONE VALLEY ONE VISION DRAFT EIR

A. Federal Agencies

1. U.S. Department of Homeland Security-FEMA, September 29, 2010
2. Angeles National Forest, December 17, 2010
3. U.S. Department of the Interior, December 22, 2010

B. State Agencies

1. Santa Monica Mountains Conservancy, November 8, 2010
2. State of California Native American Heritage Commission, December 14, 2010
3. State of California Department of Fish and Game, December 22, 2010
4. State of California, Office of Planning and Research, December 23, 2010
5. State of California, Office of Planning and Research, December 28, 2010
6. State of California, Department of Transportation, February 8, 2011
7. State of California, Office of Planning and Research, February 11, 2011

C. Local Agencies

1. Castaic Union School District, Newhall School District, Saugus Union School District, November 5, 2010
2. County of Ventura, Office of the Agricultural Commissioner, November 19, 2010
3. County of Los Angeles Fire Department, November 17, 2010
4. County Sanitation Districts of Los Angeles County, November 19, 2010
5. County of Ventura Resource Management Agency, December 22, 2010
6. County of Ventura, January 21, 2011
7. County of Los Angeles Department of Parks and Recreation, February 17, 2011

D. Public Comments

1. Heritage Hills Ranch, September 8, 2010
2. Valerie Thomas, September 20, 2010
3. BWERNER@QUALCORP.COM, September 21, 2010
4. John Tommy Rosas, September 22, 2010
5. TimBen Boydston, September 23, 2010

6. Thomas Surak, September 22, 2010
7. Barbara & Robert Waycott, September 19, 2010
8. Ben Curtis, September 22, 2010
9. Valerie Thomas, September 23, 2010
10. Todd & Minerva Hoover, September 23, 2010
11. Valerie Thomas, September 24, 2010
12. Montezuma Land Development, Inc, September 29, 2010
13. gmarndt@aol.com, October 4, 2010
14. Thomas and Luanne Emery, October 5, 2010
15. Wendy Hildago, October 5, 2010
16. Jennifer Kilpatrick, September 26, 2010
17. Beverly Celentano, October 5, 2010
18. John Lee, October 19, 2010
19. Terry Cosley, October 5, 2010
20. Anthony Herda, October 25, 2010
21. Mike Naoum, October 25, 2010
22. Mike Naoum, November 1, 2010
23. Placerita Canyon Property Owner's Association, November 10, 2010
24. Valerie Thomas, November 10, 2010
25. Diane Trautman, November 12, 2010
26. Mike Naoum, November 11, 2010
27. Stan Walker, December 18, 2010
28. Valerie Thomas, January 7, 2011
29. Santa Clarita Organization for Planning and the Environment (SCOPE), January 7, 2011
30. Susan Carey, January 7, 2011
31. Michael Naoum, January 13, 2011
32. Charles O'Connell, January 25, 2011
33. Chuck O'Connell, January 25, 2011
34. The Democratic Club of the Santa Clarita Valley, January 31, 2011
35. Valerie Thomas, January 31, 2011
36. Graham • Vaage LLP, February 18, 2011
37. Michael Naoum, February 18, 2011
38. Diane Trautman, February 21, 2011

39. Democratic Alliance for Action, February 21, 2011
40. Thomas Surak, February 21, 2011
41. Sierra Club, February 21, 2011
42. Susan Carey, February 21, 2011
43. Diane Trautman, February 22, 2011
44. Comprehensive Development Consulting, February 22, 2011
45. Santa Clarita Organization for Planning and the Environment (SCOPE), February 22, 2011
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47. Letter from Valerie Thomas, September 22, 2010
48. Letter from Valerie Thomas, January 29, 2011

E. Public Hearing Comments

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2. Planning Commission Hearing, December 7, 2010
3. Public Hearing Comments from the Planning Commission Hearing of November 16, 2010
4. Public Hearing Comments from the Planning Commission of January 18, 2011
5. Public Hearing Comments from the Planning Commission Hearing of March 1, 2011

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052



FEMA

September 29, 2010

Jason Smisko, Senior Planner
City of Santa Clarita
Community Development Department
23920 Valencia Boulevard, Suite 302
Santa Clarita, California 91355

RECEIVED
PLANNING DIVISION

OCT 04 2010

CITY OF SANTA CLARITA

Dear Mr. Smisko:

This is in response to your request for comments on Notice of Public Hearing for One Valley One Vision General Plan.

1

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Los Angeles (Community Number 065043) and City of Santa Clarita (Community Number 060729), Maps revised September 26, 2008. Please note that the City of Santa Clarita, Los Angeles County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.
- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any *development* must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

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www.fema.gov

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.
- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at <http://www.fema.gov/business/nfip/forms.shtm>.

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Please Note:

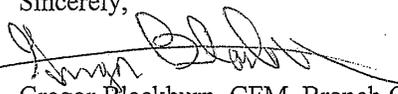
Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Santa Clarita floodplain manager can be reached by calling Christine Monde, Floodplain Coordinator, Department of Public Works, at (661) 255-4959. The Los Angeles County floodplain manager can be reached by calling George De La O, Senior Civil Engineer, at (626) 458-7155.

3

If you have any questions or concerns, please do not hesitate to call Cynthia McKenzie of the Mitigation staff at (510) 627-7190.

4

Sincerely,



Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:

Christine Monde, Floodplain Coordinator, City of Santa Clarita
George De La O, Senior Civil Engineer, Department of Public Works, Los Angeles County
Garret Tam Sing/Salomon Miranda, State of California, Department of Water Resources,
Southern Region Office
Cynthia McKenzie, Senior Floodplanner, CFM, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

www.fema.gov

Letter No. A1 Letter from U.S. Department of Homeland Security, September 29, 2010**Response 1**

This comment is an introduction to comments that follow. No further response is required.

Response 2

The commenter outlined the basic National Flood Insurance Program (NFIP) floodplain management building requirements and that the City of Santa Clarita is a participant in the program. Draft EIR, Section 3.12, Hydrology page 3.12-21 acknowledges participation in this program:

The City has adopted its floodplain management ordinance to implement the National Flood Insurance Program (NFIP) and other federal requirements established by FEMA. The City has adopted Chapter 11.60 of the Los Angeles County Code by references which establishes floodway maps, governs land uses and construction of structures within floodways, and establishes water surface elevations. Floodplains are divided into two types of hazard areas:

- *The “floodway,” which is the portion of the stream channel that carries deep, fast moving water (usually defined as the area needed to contain a 100-year storm flow); and*
- *The “flood fringe” area, the remainder of the floodplain outside the floodway, which is subject to inundation from shallow, slow-moving water.*

In all areas of special flood hazards the following standards are required for all types of construction¹:

- *Anchoring*
 - *All new construction and substantial improvements of structures including manufactured homes shall be adequately anchored to prevent floatation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.*
- *Construction Materials and Methods. All new construction and substantial improvements of structures, including manufactured homes, shall be constructed:*
 - *With flood-resistant materials as specified in FEMA Technical Bulletin TB 2-93, and utility equipment resistant to flood damage for all areas below the level of the base flood elevation plus one (1) foot;*
 - *Using methods and practices that minimize flood damage;*
 - *With electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and*

¹ City of Santa Clarita Municipal Code, Chapter 10.06 Floodplain Management.

- Within Zones AH or AO (areas subject to inundation by 1-percent-annual-chance shallow flooding where average depths are between 1 and 3 feet), so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.
- Elevation and Flood proofing.
 - Residential Construction. All new construction or substantial improvements of residential structures shall have the lowest floor, including basement:
 - In AE, A1-A30 (areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods) AH (areas subject to inundation by the 1-percent-annual-chance shallow flooding [usually areas of ponding] where average depths are between 1 and 3 feet) Zones, elevated to at least one (1) foot above the base flood elevation;
 - In an AO Zone, elevated above the highest adjacent grade to a height exceeding the depth number specified in feet on the FIRM (Flood Insurance Rate Map) by at least one (1) foot, or elevated at least three (3) feet above the highest adjacent grade if no depth number is specified;
 - In an A Zone (areas subject to inundation by the 1-percent-annual-chance flood event), without BFEs (Base Flood Elevations) specified on the FIRM (Flood Insurance Rate Map) (unnumbered A zone), elevated at least one (1) foot above the base flood elevation, as determined by Section 10.06.040(B)(3). Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered civil engineer or licensed land surveyor, and verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.
 - Nonresidential Construction. All new construction or substantial improvements of nonresidential structures shall either be elevated to conform with subsection (A)(3)(a) of this section or:
 - Be flood proofed, together with attendant utility and sanitary facilities, below the elevation recommended under subsection (A)(3)(a) of this section, so that the structure is watertight with walls substantially impermeable to the passage of water;
 - Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 - Be certified by a registered professional civil engineer or licensed land surveyor that the standards of subsection (A)(3)(b)(i) and (ii) of this section are satisfied. Such certification shall be provided to the Floodplain Administrator.
 - Flood Openings. All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing

for the entry and exit of floodwater. Designs for meeting this requirement must exceed the following minimum criteria:

- *For non-engineered openings:*
 - *Have a minimum of two (2) openings on different sides having a total net area of not less than 1 square inch for every 1 square foot of enclosed area subject to flooding;*
 - *The bottom of all openings shall be no higher than 1 foot above grade;*
 - *Openings may be equipped with screens, louvers, valves or other coverings or devices; provided, they permit the automatic entry and exit of flood water; and*
 - *Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or*
 - *Be certified by a registered professional engineer or architect.”*

Response 3

The comment noted that many communities have adopted more stringent floodplain management building requirements. The comment provides factual background information only and does not raise an environmental issue within the meaning of California Environmental Quality Act (CEQA). The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: Glaser, Mitch [mglaser@planning.lacounty.gov]
Sent: Wednesday, December 22, 2010 2:48 PM
To: Jason Smisko; thernandez@fs.fed.us
Cc: Patrick Bryant; Fred Follstad; Michael Murphy
Subject: RE: Thank you for your attendance!

Hi Tasha:

The County adopted an updated trails plan for the unincorporated Santa Clarita Valley in 2007. It is available here:

http://planning.lacounty.gov/assets/upl/case/project_r2006-00414_scv-map.pdf

Feel free to contact me if you have any additional questions about trails plan for the unincorporated areas.

Thanks,
Mitch

Mitch Glaser, AICP
Supervising Regional Planner
Countywide Studies Section
Department of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012
<http://planning.lacounty.gov>
213-974-6476



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From: Jason Smisko [mailto:JSMISKO@santa-clarita.com]
Sent: Wednesday, December 22, 2010 2:42 PM
To: thernandez@fs.fed.us
Cc: Patrick Bryant; Fred Follstad; Michael Murphy; Glaser, Mitch
Subject: RE: Thank you for your attendance!

Dear Tasha,

1/10/2011

I don't believe OVOV reflects the full extent of information you are looking for, but I can provide you with the links below which I hope you find helpful.

The City's Non Motorized Transportation is online here <http://www.santa-clarita.com/index.aspx?page=559>.

The City's OVOV Draft Conservation and Open Space Element is online here <http://www.santa-clarita.com/ovov/pdf/Draft%20Elements/GeneralPlan/6-ConservationOpenSpaceElement.pdf>. See pages CO-75, 76 and exhibit CO-9 in that element for a discussion and map on the master planning of trails.

As all of the trails connections are in the Angeles National Forest are in Los Angeles County, I have cc'd the County OVOV Project Manager, Mitch Glaser, in case he has anything to add to this.

Please feel free to contact me if you would like to discuss this further.

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306
jsmisko@santa-clarita.com

From: Jason Smisko
Sent: Monday, December 20, 2010 10:42 AM
To: 'thernandez@fs.fed.us'
Cc: Patrick Bryant; Fred Follstad; Michael Murphy
Subject: RE: Thank you for your attendance!

Hi Tasha,

I will put some resources together later this week and get you a few materials to help you with this.

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306

From: Tasha Hernandez [mailto:thernandez@fs.fed.us]
Sent: Friday, December 17, 2010 2:15 PM
To: Michael Murphy
Subject: Re: Thank you for your attendance!

Greetings Michael,

It was a pleasure to be introduced to this project and to participate in the recent meeting. I am writing to request

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1/10/2011

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maps or locations of the focus areas for non-motorized trail development within the plan. I am interested in those trails that will lead directly into national forest system lands in particular. From what I understand, there were specific methods used to come up with the trail list of focus. I would also be interested in the methodology used and the analysis outcomes for such proposed actions. The Angeles National Forest is interested in analyzing any increased recreation that we could possibly encounter and how we can properly prepare and manage for this. I appreciate your time and effort. Happy Holidays!

Tasha Hernandez
District Natural Resources Officer

Santa Clara Mojave Rivers Ranger District
Angeles National Forest
Office: (661) 296 9710
Extension 242

Climb the mountains and get their good tidings.
Nature's peace will flow into you as sunshine flows into trees.
The winds will blow their own freshness into you...
while cares will drop off like autumn leaves.
~John Muir

Michael Murphy <MMURPHY@santa-clarita.com>

To Michael Murphy <MMURPHY@santa-clarita.com>

cc

12/17/2010 09:54 AM

Subject Thank you for your attendance!

Thank you for attending the City of Santa Clarita's special informational briefing of the "One Valley, One Vision" General Plan update. The City looks forward to continuing working with you to ensure "One Valley, One Vision" meets the needs of its local agencies, stakeholders, and residents as we plan for the future growth of the Santa Clarita Valley and the preservation of its natural resources.

If you have any further questions regarding the "One Valley, One Vision" General Plan, please do not hesitate to contact me at (661) 255-4384 or by email at mmurphy@santa-clarita.com.

Sincerely,

Mike Murphy
Intergovernmental Relations Officer



1/10/2011

Letter No. A2 Letter from Angeles National Forest, December 17, 2010

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The commenter requested maps or locations for non-motorized trail development within the plan that will lead into the national forest system. A discussion of the City Master Plan of Trails can be found in the Draft OVOV Conservation and Open Space Element on pages CO-75 and 76 and Exhibit CO-9. This information was subsequently provided to the commenter.

Response 3

The commenter was under an assumption that a methodology was used to come up with the trail list of focus. Please see **Response 2** above.

Response 4

The commenter noted that the Angeles National Forest is interested in analyzing any increased recreation that they may encounter and how they can anticipate and manage for increased use of forest facilities. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
81440-2011-CPA-0194

December 22, 2010

Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, California 91355

Subject Notice of Completion and Availability of the Draft Program Environmental
Impact Report for the One Valley One Vision General Plan, Los Angeles County,
California

Dear Mr. Smisko:

This letter provides the U.S. Fish and Wildlife Service's (Service) comments on the subject Draft
Program Environmental Impact Report (DPEIR). The notice of availability was received in our
office on September 24, 2010. The proposed project is located in the city of Santa Clarita, Los
Angeles County, California.

The One Valley One Vision (OVOV) General Plan is a joint effort between the City of Santa
Clarita (City), the County of Los Angeles (County), and Santa Clarita Valley (Valley) residents
and businesses to create a single vision for the future growth of the Valley and the preservation
of natural resources. The DPEIR addresses the impacts of the City of Santa Clarita OVOV
General Plan within the City's incorporated boundaries and its adopted sphere of influence in the
unincorporated County areas in the Valley, approximately 53,000 acres.

1

The City has prepared a comprehensive update to its General Plan and the associated DPEIR for
the proposed planning area. OVOV serves as a foundation for making land use decisions based
on goals and policies related to land use, transportation, population growth and distribution, open
space, resource preservation and utilization, air and water quality, noise impacts, public safety,
infrastructure, and other related physical, social, and economic factors.

The Service's responsibilities include administering the Endangered Species Act of 1973, as
amended (Act), including sections 7, 9, and 10. Section 9 of the Act and its implementing
regulations prohibit the taking of any federally listed endangered or threatened species. Section
3(18) of the Act defines "take" to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap,
capture, or collect, or to attempt to engage in any such conduct." Harm is further defined by the
Service to include significant habitat modification or degradation that results in death or injury to
listed species by significantly impairing essential behavioral patterns, including breeding,
feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that

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create the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If a project is to be funded, authorized, or carried out by a Federal agency, and may affect a listed species, the Federal agency must consult with the Service pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply to the Service for an incidental take permit pursuant to section 10(a)(1)(B) of the Act.

2

As it is not our primary responsibility to comment on documents prepared pursuant to the California Environmental Quality Act (CEQA), our comments on the DPEIR do not constitute a full review of project impacts. We are providing our comments based upon a review of sections addressing biological resources, project activities that have potential to affect federally listed species, and our concerns for listed species within our jurisdiction related to our mandates under the Act. Based upon our review, we have the following concerns regarding the DPEIR's characterization of impacts to federally listed species:

3

To the best of our knowledge, Table 3.7-1 of the DEIR accurately identifies the federally listed species, which are known to occur in the City's planning area. Before approving projects under the scope of the General Plan, we recommend that the City coordinate with us to determine if surveys for federally listed species according to Service protocol are necessary. It should be noted that the federally endangered least Bell's vireo (*Vireo bellii pusillus*) had very successful years in 2009 and 2010 throughout its range in regard to breeding and habitat occupation. In addition, we have indications that the coastal California gnatcatcher (*Polioptila californica californica*) may also be expanding its range, as it has recently been observed in locations previously considered unoccupied. In light of this new information, we recommend that the City require future project proponents in the Plan area to conduct surveys for the least Bell's vireo and coastal California gnatcatcher when potentially suitable habitat is present on a proposed project site.

4

Page ES-28 of the DPEIR states that the project may have potentially significant impacts on special status species, sensitive plant communities, federally protected wetlands, wildlife movement, and nursery sites. Mitigation measure 3.7-1 states, "When required, biological survey reports shall include an analysis of the potential for a proposed project to result in direct mortality of individuals of listed, proposed, or candidate species, losses of habitats occupied by such species, and losses of opportunity for habitat connectivity." While we appreciate the conservation aim of this measure to protect special-status species, we recommend that the measure clarify when biological surveys are required, or require correspondence with the Service to determine when such surveys are needed. The measure should also require an analysis of the potential of the project to result not only in direct mortality, but indirect effects to listed species as well. We feel the addition of this language will better inform project proponents of their responsibilities under the Act, as described in the aforementioned paragraphs.

5

Mitigation measure 3.7-2 has language similar to measure 3.7-1. In this case, the measure states that if a special-status species may potentially be subject to direct loss through implementation of construction activities, mitigation measures proposed as part of biological site survey reports shall include a requirement for preconstruction surveys, followed by measures to ensure avoidance, relocation, or safe escape. Please note that take of federally listed species can occur indirectly as a result of construction activities, or during future use of a project site. A land owner may be able to site the development of a residence so that it does not result in direct mortality of a federally listed species, but the indirect effects of the future occupancy of the residence may result in take of individuals. For example, night time lighting, domestic pets, contaminated runoff, introduction of invasive species, and excessive noise are examples of potential indirect effects to a federally listed species resulting from a residential development. We recommend that measure 3.7-2 be revised so that indirect effects of a proposed project are evaluated for their impacts to federally listed species. Further, measure 3.7-2 includes language in regard to relocation of individuals. Relocation of one or more individuals of a federally listed species would constitute take, and therefore would require a permit from the Service through section 7(a)(2) or 10(a)(1)(B). We recommend that language be added to the measure to inform applicants of their responsibilities under the Act.

6

In some cases, halting construction activities until after offspring have been weaned or fledged as proposed in measure 3.7-2 may not be enough to avoid the take of a federally listed species. For example, if a listed species is using a proposed project site, the implementation of a proposed project may remove habitat that is serving a role in the breeding, feeding, or sheltering of the species. This may force individuals to seek out new habitat and breeding sites. Moving to unfamiliar territory may create the likelihood of injury by exposing individuals to exhaustion and starvation associated with decreased foraging opportunities, increased predation risk, inter- and intraspecific interactions, and decreased probability of reproductive success.

7

Please note that despite the incorporation of any mitigation measures developed pursuant to the CEQA, any take of listed wildlife species that would result from implementation of the proposed project would require either (a) an exemption from the prohibitions against take in section 9 of the Act obtained pursuant to section 7 or (b) take authorization pursuant to section 10(a)(1)(B) of the Act, as described above. Significant impacts as defined under CEQA do not necessarily equate to "take" as defined in Section 3(19) of the Act, nor do mitigation measures that reduce CEQA impacts to less-than-significant levels necessarily satisfy the applicant's responsibility to avoid or obtain a permit for such take under the Act.

8

The City should provide special notice to future project proponents and property owners that their projects may lie within the range of federally listed species. In the event that the proponents, proponents' agents, property owners, or other concerned parties encounter a federally listed species during development on properties within the Santa Clarita Valley, the project proponents should suspend all ground-disturbing activities and contact the Service immediately. Please note that this letter does not constitute authorization for a project proponent to take a federally listed species in any manner.

9

Both the Land Use Element and the Conservation and Open Space Element of the project description outline policies which have a potential to affect federally listed species. While we understand that the goal of the General Plan is to guide future development within the Santa Clarita Valley, the general wording of the policies makes it difficult to anticipate how federally listed species may be affected. Examples include phrases like “to the extent feasible” and “where appropriate.” We suggest the language of the area plan be strengthened to ensure the policies are complied with and impacts on biological resources are anticipated and properly analyzed.

10

Figure 3.7-1 of the DPEIR illustrates the critical habitat units within the Santa Clarita Valley for the federally endangered least Bell’s vireo and arroyo toad (*Anaxyrus californicus*), and the threatened coastal California gnatcatcher and California red-legged frog (*Rana draytonii*). We recommend that the figure be updated to reflect the current status of arroyo toad critical habitat. Currently, there is no final designated critical habitat for the arroyo toad in the Santa Clarita Valley; however, as of October 13, 2009, critical habitat has been repropoed (74 Federal Register 52612) and includes critical habitat in the Santa Clarita Valley and within the scope of the Area Plan, approximately in the locations shown in Figure 3.7-1. Furthermore, critical habitat for the California condor (*Gymnogyps californianus*) exists within the OVOV planning area and should be depicted in Figure 3.7-1.

11

After review of Figure 2.0-4, the Proposed Land Use Policy Map, we have concerns regarding the proposed land uses within current and proposed Significant Ecological Arcas, as identified in Figure 3.7-2. We recommend that Significant Ecological Areas be given the strictest land use protections possible to support the conservation of the biological resources in the Santa Clarita Valley. Furthermore, it is especially important that sensitive species surveys be conducted in the Significant Ecological Areas before any project is approved that may adversely affect biological resources. For example, Figure 2.0-4 shows that Land Use Policy RL-5 (1 du/ 5 ac) is assigned within the Cruzan Mesa Significant Ecological Area. Because several federally listed species occur within the Cruzan Mesa, and in other Significant Ecological Areas, the City should require future project proponents to conduct surveys for federally listed species before project approval, or through correspondence with the Service obtain concurrence with the determination that surveys are not necessary for the proposed project.

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In summary, we find the DPEIR to be lacking in specificity for information regarding the impacts that the General Plan, as proposed, would have on biological resources. We encourage the City to ensure that the information identified above be gathered for evaluation so that any impacts to federally listed species can avoided wherever possible or minimized to the maximum extent. Any action that would result in the take of listed animal species would be subject to the prohibitions of section 9 of the Act, thus requiring some form of authorization, either through an incidental take permit or interagency consultation if a Federal nexus exists. We encourage the City to work with us to conserve and protect federally listed species and their habitats that occur in the Santa Clarita Valley, and we are willing to work with you to achieve this goal by utilizing a variety of available resources.

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Jason Smisko

We appreciate the opportunity to provide comments on the One Valley One Vision General Plan DPEIR. If you have any questions regarding our comments, please contact Colleen Mehlberg of our staff at (805) 644-1766, extension 221.

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Sincerely,

/s/ Roger P. Root, for

Jeff Phillips
Deputy Assistant Field Supervisor

Letter No. A3 **Jeff Phillips, United States Department of the Interior, Fish and Wildlife Service, January 21, 2011**

Response 1

The comment is introductory and provides a description of the One Valley One Vision (OVOV) plan and the geographic area within the County. No further response is required.

Response 2

The comment describes the Fish and Wildlife Service's statutory and regulatory responsibilities under the Endangered Species Act of 1973 (ESA), including sections 7, 9, and 10.

Adoption of the OVOV plan does not authorize any ground disturbance, construction, or other action that would result in the take of any listed animal species under the ESA. Therefore, the County is not required to apply for an incidental take permit from the Service pursuant to section 10(a)(1)(B) of the Act.

The comment provides factual background information regarding the Service's responsibilities under the ESA. However, the comment does not raise any issue regarding the content or adequacy of the Draft EIR. Therefore, no further response is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 3

The comment states that it is not the Service's primary responsibility to comment on CEQA documents, but provides comments on project activities that may affect federally listed species.

The comment provides factual background information regarding the Service's responsibilities, but does not raise any issue regarding the content or adequacy of the Draft EIR. Therefore, no further response is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 4

The comment states that the Table 3.7-1 of the Draft EIR accurately identifies the federally listed species known to occur in the OVOV planning area. The comment also recommends that the City coordinate with the Service to determine if surveys for federally listed species are needed before the City approves a project within the OVOV area. In particular, the Service recommends that the City require future project applicants within the OVOV area to conduct surveys for the least Bell's vireo and the coastal California gnatcatcher when potentially suitable habitat is present on the site of a proposed project.

The City routinely includes the U.S. Fish and Wildlife Service among the agencies with which it consults in carrying out its responsibilities as lead agency under CEQA. In addition, the City typically requires a project proponent/applicant to provide biological surveys whenever a project site may include suitable habitat for special-status species such as the least Bell's vireo and the coastal California gnatcatcher. Mitigation measures 3.7-1 and 3.7-2 of the OVOV Draft EIR require that biological site survey reports: (1) analyze a project's potential to result in direct mortality of individuals of listed, proposed, or candidate species; and (2) propose mitigation measures to avoid or reduce impacts to such species. Therefore, the Draft EIR mitigation is responsive to this comment.

Response 5

The comment states that Mitigation Measure 3.7-1 does not specify when the biological surveys are required and does not require analysis of indirect impacts to listed species.

Biological surveys are requested by the City for projects requiring discretionary approval and compliance with CEQA. The City routinely recommends that biological surveys be conducted during the time of year when target species are most likely to be observed, which is typically spring, especially for plant species. When a listed species has a high probability of occurrence based on habitat suitability, the City will request that surveys be conducted. Mitigation Measure 3.7-1 has been modified to include indirect impacts as well as direct impacts. This modification is consistent with Policy CO 10.1.14 of the OVOV Conservation and Open Space Element. Please see the OVOV Final EIR section entitled, "Revised Draft EIR Pages" for the actual text revision.

The recommended modification to Section 3.7, Biological Resources, page 3.7-67 of the Draft EIR has been made. Please see the OVOV Final EIR section entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 6

The comment states that while construction of a project may be conducted in a manner that avoids direct impact on a listed species, occupancy of the project may still cause indirect effects on that species, resulting in take. The Service recommends that language be added to Mitigation Measure 3.7-2 to evaluate indirect effects to federally listed species and to inform applicants of their responsibilities under the ESA. In addition, the comment articulates the Service's position that relocation of a federally listed species constitutes a take and, therefore, requires an incidental take permit under section 7(a)(2) or section 10(a)(1)(B) of the ESA.

Mitigation Measure 3.7-2 has been modified to require analysis of indirect impacts on special status species, including those listed as threatened and endangered under the ESA. It should be noted that the City routinely requires project-level environmental documents prepared under CEQA to analyze indirect impacts whenever sensitive biological resources may be present on a property proposed for development. The recommended modification to Section 3.7, Biological Resources, page 3.7-67, of the Draft EIR has been made. Please see the OVOV Final EIR section, entitled Revised Draft EIR Pages for the actual text revision.

Note, however, that a project applicant's responsibilities under the ESA depend on factual and legal matters that are highly project-specific. For this reason, those responsibilities are beyond the scope of this general plan-level Draft EIR. Nonetheless, the City also routinely requires project-level environmental documents prepared under CEQA to describe the project site's existing environmental conditions and evaluate the project's impacts (direct, indirect, and cumulative) on sensitive biological resources, including special-status species. The project-level impact analysis is then assessed against the identified significance criteria and significance determinations are made. Based on those significance determinations, feasible mitigation measures are recommended to avoid or reduce the identified impacts. Those mitigation measures must comply with all federal, state, and local laws, including the ESA prohibitions associated with the relocation of listed species.

Response 7

The comment states that employing avoidance measures until offspring have been weaned or fledged may not be sufficient to avoid take of individuals of listed species. In addition, the comment states that loss of habitat would result in impact outside the breeding and rearing seasons.

Mitigation Measure 3.7-1 requires, among other things, that applicants analyze project impacts on habitat and the effect of those impacts on sensitive species, including their breeding, feeding, and sheltering behaviors. If such impacts are deemed significant, the City would require that the project applicant avoid or reduce those habitat-related impacts. If such measures cannot feasibly avoid take of federally listed species, the applicant would be required to seek an incidental take permit from the Service.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required

Response 8

The comment states that implementation of CEQA mitigation measures may not prevent the take of federally listed species, and that, in such case, the project applicant would have to secure an exemption from the ESA's take prohibitions or an incidental take permit.

The comment also indicates that a significant impact under CEQA is not the equivalent of a take under the ESA, and that mitigation measures, which reduce CEQA impacts to less than significant do not necessarily eliminate the potential for take of listed species as that term is defined in the ESA.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 9

The comment states that future project applicants with the City should be provided with special notice of the range of federally listed species occurring within the OVOV plan area. While the City endeavors to provide property owners seeking discretionary development approvals with as much information as possible concerning special-status species occurring within the City, it is not practical for the City to provide special notice to future project proponents that project sites may lie within the range of federally listed species. It is incumbent upon a property owner to know the constraints to development of their property before they undertake a project design. A property owner's due diligence would be to contact a qualified biological firm to provide current and accurate information concerning federally listed species.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 10

The comment states that policies in both the Land Use and the Conservation and Open Space Elements of the OVOV plan are too general, and the Service suggests adding language requiring compliance with these policies.

The Service's suggestion will be provided to City decision-makers for their consideration. However, as the comment does not raise any issue specific to the content or adequacy of the Draft EIR, no further response is required.

Response 11

The comment states that Figure 3.7-1 of the Draft EIR depicts critical habitat of arroyo toad that is no longer current and recommends that the figure be updated to reflect the current arroyo toad and the California condor critical habitat. This figure has been checked against the Service's recently adopted

Final Rule designating critical habitat for the arroyo toad and found to conform substantially to the geographic area described in the designation. In addition, Figure 3.7-1 does include critical habitat for the California condor in the yellow rectangular polygon straddling the boundary between Los Angeles and Ventura Counties in the vicinity of Piru Creek.

The County acknowledges this input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 12

The comment states concern about proposed land uses within the Significant Ecological Areas (SEAs) and recommends that SEAs be given strict land use protections.

The Service's suggestion will be provided to City decision makers for their consideration. However, as the comment does not raise any issue specific to the content or adequacy of the Draft EIR, no further response is required.

Response 13

The comment states that surveys for sensitive species within an SEA should be conducted prior to project approval by the City. The City concurs with this statement. The current SEA program requires project applicants that propose development within an SEA to prepare a biological resource evaluation that is reviewed by the City, prior to the City completing the environmental review of the proposed development. When sensitive species have the potential to occur on the project site, the biological evaluation will include the survey results for those sensitive species. This has been the County practice since 1982.

The comment does not raise any specific issue regarding the content or analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required.

Response 14

The comment states the opinion that the Draft EIR lacks specific information regarding impacts to biological resources resulting from the OVOV plan. The City does not concur with this opinion and the comment presents no data or other specific documentation showing how or in what way the biota impact analysis is lacking (see Pub. Resources Code, Section 21153, subd. (c)).

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 15

The comment encourages the City to avoid impacts to federally listed species whenever possible and for the County to work with the Service to conserve federally listed species. The City shares the goal to conserve federally listed species and to avoid impacts to these species whenever possible. The City maintains an active consultation process with trustee agencies like the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 16

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Proposed modification of Mitigation Measures 3.7-1 and 3.7-2

MM 3.7-1: Biological site survey reports shall include an analysis of the potential for a proposed project to: (1) result in direct or indirect mortality of special status species; (2) interfere with the breeding, feeding, and/or sheltering behaviors of such species; (3) adversely affect habitat occupied by such species; and (4) reduce wildlife movement and/or habitat connectivity.

Reports must be prepared by qualified biological consultants. Reports must include specific information regarding site location, on-site and surrounding biological resources, observed and detected species, site photographs, vegetation map, literature sources, timing of surveys, project footprint, anticipated project impacts, proposed mitigation measures, and additional recommended surveys. Such reports must be submitted to City staff for review and oversight as part of the project-level CEQA compliance process.

MM 3.7-2: If construction activities have the potential to significantly affect special-status species, the biological site survey report shall propose mitigation measures that: (1) require pre-construction surveys for special-status species surveys; and (2) ensure avoidance, relocation, or safe escape of special-status species from construction activity, whichever action is the most appropriate. If special-status species are found to be brooding, denning, nesting, etc. on site during the preconstruction survey, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate off-site habitat areas. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume

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November 8, 2010

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 302
Santa Clarita, California 91355

One Valley One Vision
Draft Program Environmental Impact Report

Dear Mr. Smisko:

The Santa Monica Mountains Conservancy (Conservancy) is the principal State planning agency for the Rim of the Valley Trail Corridor zone which includes major portions of the One Valley One Vision planning area. During the One Valley One Vision (OVOV) planning process, the Conservancy has repeatedly commented about the preservation of natural resources in the plan, or the lack thereof. Our understanding is that the City and County are issuing separate decisions based on one common Environmental Impact Report (EIR). We have attached our comments to the County, dated October 5, 2009, for inclusion in the City's records. The plan contains numerous well-intentioned policies and objectives to protect open space, habitat, and scenic ridgelines, but lacks mechanisms for any assured programmatic implementation of the proposed greenbelt surrounding the Santa Clarita Valley. Without stronger land-use controls on the periphery, growth will not be effectively directed to already urbanized areas as intended.

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Plan Lacks Adequate Protection of Open Space

As stated in the Biological Resources section of the EIR, "The proposed General Plan goals, objectives, and policies do not provide a mechanism for the compensation of lost habitats when avoidance or minimization of impacts is considered to be infeasible." Despite its "smart growth" intentions, the proposed plan still calls for the wholesale conversion of prime habitat to development. And yet, when these impacts occur, the programmatic EIR is designed in such a way to write off future impacts as "significant and unavoidable" rather than making an honest attempt to partially avoid or mitigate them. Without a mechanism or incentive for habitat protection, the greenbelt exists only on paper. The land use map is the core of the plan, yet it shows a continuous expanse of land-use designations that would in fact sever the two halves of the Angeles National Forest and impede wildlife

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movement through the Newhall Wedge (area between SR-14 and I-5). The Conservancy urges the City and County to use their zoning authority to strongly protect habitat connectivity on all scales.

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The Conservancy will continue to partner with the City to achieve common open space objectives. Through our joint efforts, we have successfully protected key habitat blocks, including the Whitney Canyon Open Space Preserve and the Santa Clarita Woodlands. However, this partnership is limited in what it can accomplish in comparison to the Valley's overall preservation needs and objectives. Acquisition is but one tool for directing growth away from prime habitat areas. Only the City and County can go farther by reducing zoned densities and creating land use regulations for rural areas that emphasize permanent deed-restricted habitat preservation. The OVOV plan is deficient for relying too heavily on acquisition to the exclusion of other land protection methods.

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The land use map is the defining feature of any general plan, yet the OVOV map provides no direction for habitat conservation efforts. Instead, unincorporated land is zoned continuously for one dwelling unit per two acres, even when lot sizes are larger than this. Zoned density should reflect the lot size in undeveloped areas to discourage subdivision in areas intended to remain rural. The only by-right development in rural areas should be one house per lot unless part of a deliberate growth management strategy or clustered existing community. The proposed zoning change from agricultural to residential makes this land use control critical for managing development in non-urban areas in a manner where habitat resources and connectivity can be permanently maintained.

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As we commented previously, the greenbelt is meaningless without any definition or teeth. Where is the map showing its extent? What policies will apply to projects in the greenbelt, but not the rest of the plan area? How will permanent protection be achieved? Planned open space preservation must be seamlessly integrated with the land use plan. Known wildlife movement corridors and "missing links" should be overlaid on this map to evaluate the extent to which the plan adequately protects them. The plan should raise the bar for regional growth management by focusing on defined goals and measurable results. Other jurisdictions have attempted this, but fallen far short, such as the Tierra Rejada Valley greenbelt effort consisting of the Cities of Thousand Oaks, Simi Valley, and Moorpark and Ventura County. We believe the City of Santa Clarita and County of Los Angeles can do far better.

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Inconsistent Plan Elements Create Conflicting Growth Patterns

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Furthermore, the Circulation Element is thoroughly inconsistent with the Conservation and Open Space Element by proposing to double road capacity within rural areas that are presumably part of the greenbelt. However, it is difficult to make this assessment because the extent of the greenbelt is so ill-defined. Widening these roads would irreparably damage wildlife movement by more than doubling vehicle-caused mortality and providing a barrier to genetic exchange:

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- Agua Dulce Canyon Road
- Davenport Road
- Escondido Canyon Road
- Bouquet Canyon Road north of Copper Hill Drive
- The Old Road south of Calgrove Boulevard
- Placerita Canyon Road
- Shadow Pines Boulevard/Tick Canyon Road (proposed extension)
- Sierra Highway north of Vasquez Canyon Road

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All of the above road projects must be removed from the OVOV plan to avoid decimating regional wildlife mobility. Completion of these extensions and widenings would induce residential growth in outlying areas and forever alter the character of the valley's rural communities. Groundwater recharge rates and water quality will also suffer commensurately with increased road capacity and associated induced development. Transportation drives development and misguided transportation investments would attract residential development to the periphery, to the detriment of fiscal and environmental sustainability.

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Edge Effects Inadequately Addressed

The Conservation and Open Space Element is well-intentioned, but does not specifically address edge effects on Southern California ecosystems. In a setting like Santa Clarita, creating on-site habitat may be a much lower priority than avoiding natural habitat destruction in the first place. While open space in urban areas does have habitat value for birds, insects, and some urban-adapted small mammals, requiring or incentivizing too much open space on urban parcels will lower effective densities and result in greater expansion into truly natural areas. The plan must strike a balance between maximizing the habitat value of urban open space and encouraging compact development that reduces

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development pressure on natural land. The plan should allow and encourage off-site habitat acquisition as a mitigation measure whenever natural land is proposed to be urbanized.

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The element recommends buffers of 50 to 100 feet to protect wetlands and wildlife movement corridors. These values are much too low to substantially reduce edge effects on these sensitive areas if corridor widths are just a few hundred feet wide or less. Movement corridors must be designed for target species, such as mountain lions, which require much greater buffers to not impact habitat connectivity. Under no circumstances should the buffer area for sensitive habitat features be less than the required brush clearance radius.

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Plan Lacks Adequate Protection of Significant Resources

The County's proposed expansion of Significant Ecological Areas (SEA) is an important step for considering biological resources within potential development areas. Several areas extend into City jurisdiction. To adequately protect these resources, which include a complete array of valley ecosystems, the City must adopt the boundaries of the County SEAs and hold development to a higher standard in these areas. To reflect the best available biological science, the plan must fold in future acceptance of the pending County SEA boundary adjustments. The SEAs encompass numerous parcels slated for development within the City that deserve maximum impact avoidance. These properties should be dramatically down-zoned to reduce development in sensitive areas.

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The plan also lacks adequate protection of riparian resources. Ridgelines are properly identified as valuable aesthetic and biological resources, but it is the riparian corridors that are home to the plurality of sensitive species and provide for linear wildlife movement. Policies should place a higher priority on preserving streams in their natural condition, particularly in areas where the urban footprint will expand. To truly protect riparian resources, the plan must prohibit all future hard-bottom channels. Armored channel walls should also be prohibited unless hydrological studies determine that no alternative designs are feasible. Proposed flood control improvements in Mint Canyon must maximize riparian habitat values. In addition, clear span bridges should be required for all public roads crossing riparian habitat. Reinforced concrete box culverts should be required at a minimum for private road crossings rather than narrow culverts.

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Mr. Jason Smisko
One Valley One Vision, Draft EIR
November 8, 2010
Page 5

Lastly, the plan calls for multiple new six or eight-lane bridges over the Santa Clara River. In the spirit of impact avoidance, alternatives to bridge construction must be analyzed, including transportation demand management solutions to reduce the need for new capacity. Alignment alternatives, such as terminating the proposed Santa Clarita Parkway at Soledad Canyon Road must also be evaluated.

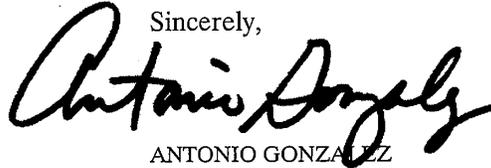
If you have any questions, please contact Paul Edelman of our staff at (310) 589-3200 ext. 128.

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Sincerely,



ANTONIO GONZALEZ
Chairperson

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October 5, 2009

Mitch Glaser
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

**Santa Clarita Valley Area Plan Update One Valley One Vision
Project No. R2007-01226-(5) SCH No. 2008071119**

Dear Mr. Glaser:

The Santa Monica Mountains Conservancy is the principal State planning agency for the Rim of the Valley Trail Corridor zone which includes major portions of the One Valley One Vision planning area. The Conservancy is also concerned with land use issues in virtually all remaining portions of the project planning area because adjacent actions can and do affect public resources within the Rim of the Valley Trail Corridor zone.

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Between December 16, 1999 and December 23, 2008, the Conservancy submitted a minimum of six comment letter on County General Plan updates. Every letter included specific comments about natural resources located within the unincorporated portions of the Santa Clarita Valley. The Final Environmental Impact Report (FEIR) or the re-circulated DEIR should clarify how those comments on the overarching General Plan would integrate with the proposed Area Plan and whether or not they have been addressed.

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Significant Ecological Area (SEA) Boundaries not Determined

The area that requires the most clarification is that of the proposed new Significant Ecological Area (SEA) boundaries. One can only assume that the Planning Commission and the Board of Supervisors will not have approved the new boundaries by the time the subject FEIR is presented for certification. The DEIR's reference to and impact analysis foundation on the draft SEA boundaries shall remain deficient until those boundaries become an approved part of the General Plan.

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Inadequate Attempt to Avoid or Reduce Biological Impacts

The entire DEIR analysis of biological impacts is so oversimplified and generalized such that decision makers cannot possibly understand the ecological ramifications of certifying the environmental document. We do not believe that Programmatic DEIRs can slip into that level of generality.

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The DEIR categorically concludes that the proposed project, and every alternative project, would result in unavoidable significant adverse ecological impacts. (The one exception in the alternatives section is addressed in the paragraph following the next paragraph.) The only component of the DEIR that briefly contemplates the reduction of significant adverse biological impacts is Alternative 2 - Preservation Corridor Alternative. However, that alternative is rejected because it does not adequately meet project objective numbers 14, 17 and 27.

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Those three project objectives deal with a mix of land uses to support basic residential needs, a commitment to affordable work force housing, and an integrated transit system, respectively. No analysis is provided on how Alternative 2 would not sufficiently meet these three project objectives just because Alternative 2 would result in slightly less population and houses in 5,225 acres of designated regional wildlife corridor in Soledad Canyon. The Conservancy sees no connection on how Alternative 2 could impede these project objectives such that the DEIR rejects it.

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We also question the DEIR conclusion in the Environmentally Superior Project analysis that Alternative 2 would reduce ecological impacts to a level less than significant. How can a plan that cannot mathematically result in less than 15,000 acres of permanently lost habitat not result in unavoidable significant adverse biological impacts?

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Inadequate Range of DEIR Alternatives

Alternative 2 - Preservation Corridor Alternative only reduces allowable density in a 5,225-acre area identified as a regional wildlife corridor by the South Coast Wildlands project. It includes no changes to reduce biological impacts anywhere else in the plan area. One DEIR alternative that modestly reduces potential impacts in a single section of the ecologically rich plan area does not represent an adequate range of alternatives.

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For the record Alternative 2 is also fundamentally flawed for not including all areas in the Angeles Linkage (Soledad) Conceptual Protection Plan (CAPP) that implements the subject South Coast Wildlands core linkage elements. Regional Planning representatives were one of a dozen agencies that produced this CAPP for connecting the two lobes of the Angeles National Forest across State Route 14.

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Any environmental document for the subject planning area that does not include implementation of the CAPP is deficient for excluding a multi-agency regional ecological land use priority and plan adopted by the California Department of Fish and Game.

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Any environmental document for the subject planning area that also does not include an alternative that recognizes all scientifically described inter-mountain range wildlife corridors in the plan area shall remain deficient.

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Any environmental document for the subject planning area that does not include an alternative that significantly reduces development density along the edge of most core or large habitat areas shall remain deficient. Random reduction of density in such areas where terrain makes such development nearly infeasible does not constitute a fully analyzed effort to reduce impacts. The DEIR or FEIR must include an explanation of how the proposed density reductions will specifically reduce biological impacts in each affected watershed. We understand that a project specific analysis is not feasible but a watershed, or equivalent, level analysis for this type of alternatives analysis is warranted.

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Promised Open Space and Green Belt but No Teeth to Produce Either

The DEIR states that it will result in more protected open space than under the existing Area Plan. Changing land use designations can help bring about such results, but it can in no way come close to assuring them. The DEIR clearly states that it is nothing more than a policy document that has no affect on underlying zoning.

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How can the proposed project create 4,098 additional acres of open space without a single penny of acquisition money or a single new filed project to identify and analyze? That DEIR assertion is completely unsupported.

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The only DEIR mitigation measure (3.7-3) for the loss of habitat is to allow habitat acquisition for compensation. The measure refers to amorphous policies (10.1.3, 10.1.11, and 10.1.12) for implementation. These policies have zero teeth, zero specifics and are basically totally pie in the sky-non-specific statements. They are not mitigation measures

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that can be verified. The DEIR is flawed without more substantive and enforceable mitigation measures for substantial habitat loss, including bulk loss of ordinary chaparral.

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How can the proposed project incorporate the provision of a green belt that provides more protected open space than currently exists today? The project description is flawed for not including enough precision on this issue. There is no Land Use Green Belt map in the DEIR as is referenced to within the document. It is basically a concept with no definition.

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The green belt expansion assertions in the DEIR are also not consistent with the proposed reduction of 10,224 acres of rural land with the proposed project.

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What kind of green belt along the edge of existing development would for example be provided for on the Stevenson Ranch Phase V property?

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The DEIR states, "The Land Use Element is designed to ensure that the irreplaceable natural resources and open spaces are preserved and protected from encroachment by future development." All lost open space is irreplaceable. The DEIR is deficient for being based on numerous sweeping assertions with no implementation or factual back up.

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Drainage and slope easements are counted as "protected open space" under the OS-C Conservation designation. This is misleading and those types of land uses should be identified as permanently disturbed open space.

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Basic Essence of Project and DEIR

The proposed project and DEIR essentially are a vehicle to change development density over hundreds of square miles. The vision of One Valley One Vision is to increase density in all but a few isolated pockets where terrain is prohibitive. Policies are important but the permanent land use designations are more important for the long term ecological state of the upper Santa Clara River watershed.

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The end result of the proposed project could well be the significant increased diminution of biological resources both within and around the edges of all existing development. The Conservancy asserts that much more can be done with the new Area Plan to pro-actively reduce potential impacts to ecological resources both within and around the edges of all existing development.

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Recommendations for Adequate DEIR Alternatives

We make the following recommendations of elements to include in project alternatives that would increase the probability of significantly adding to the greenbelt around developed plan areas and also within developed areas - particularly along the Santa Clara River and its tributaries.

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For example the River Setback Policy LU 6.1.2 should include a greater mandatory setback of 75 feet as opposed to 50 feet. Neither passes agency or scientific muster but every additional foot increases habitat quality and availability and improves the public experience. The Conservancy supports riparian systems with some natural upland buffer as opposed to contrived buried bank stabilization. Each of these tributaries is important for wildlife movement (in many cases regional wildlife movement) and the Area Plan must make provision for continued movement capability in a world where no new open space will be created from already developed areas. The opposite trend will occur where there will only be less and less open space remaining. Designing long riparian corridors as wildlife movement corridors must compensate for future development encroachment.

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The only meaningful mechanism we see to increase green belt area and habitat quality around the existing development in the plan area is to make the wholesale change of RL 2 and RL 5 designated areas to RL 10. The area where high concentrations of RL 10 most definitely make ecological sense is the Soledad Canyon watershed.

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The DEIR must include more specifics about both capturing and infiltrating storm water.

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Currently, upstream from State Route 14 municipal wells are progressively lowering the watertable below the Santa Clara River year after year. The direct and indirect adverse ecological impacts to the river vegetation are evident. Until such groundwater pumping is eliminated, and the river water levels are restored, it is difficult not to question the DEIR conclusion that the proposed increase in population and development density beyond the current plan would not result in unavoidable, potentially irreversible, significant impacts to water supply.

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The DEIR must address critical habitat for California gnatcatcher and the soon to be revised critical habitat for red-legged frog.

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Lastly the North Lake Specific Plan should be eliminated because it is obsolete under all sound planning principles.

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Letter No. B1 **Paul Edelman, Santa Monica Mountains Conservancy, December 16, 2010**

Response 1

The comment describes the role of the Santa Monica Mountains Conservancy (SMMC) in planning for the Rim of the Valley Trail Corridor zone. The comment does not raise an environmental issue within the meaning of CEQA; therefore, no further response is required.

Response 2

This comment states that the SMMC has commented on the preservation of natural resources during the OVOV planning process. The comment does not raise an environmental issue within the meaning of CEQA; therefore, no further response is required.

Response 3

This comment states that the City of Santa Clarita (City) and the County of Los Angeles (County) are issuing separate decisions on the OVOV Plan based on a common EIR. This is not correct. While the two jurisdictions will be taking separate actions on the OVOV Plan, two EIRs have been prepared, one by each jurisdiction.

Response 4

The comment states that SMMC's previous comments on the earlier 2009 County Draft EIR are attached. Please see **Responses 30** through **65**, below for information responsive to SMMC's October 5, 2009 letter to Los Angeles County Department of Regional Planning. As requested, the October 5, 2009 letter to the County is attached and part of the City OVOV project record. It should be noted that this October 2009 letter was written in response to an EIR that has since been replaced/recirculated by the County.

Response 5

The comment restates information contained in Section 3.7 Biological Resources of the Revised Draft EIR. The comment will be made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an issue relating to the content or adequacy of the Draft EIR, no further response is required.

Response 6

The comment expresses the opinion that the OVOV Plan calls for "wholesale conversion of prime habitat to development." The comment will be made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an issue relating to the content or adequacy of the Draft EIR, no further response is required.

Response 7

The comment states that the Draft EIR, rather than make an honest attempt to avoid or mitigate impacts, simply identifies impacts as “significant and unavoidable.”

The City does not agree with this statement. The Draft EIR includes mitigation measures designed to avoid or reduce potentially significant impacts. Only when an impact cannot be feasibly mitigated is it deemed “significant and unavoidable.” However, even those impacts will be subject to all feasible mitigation measures. Note also that Mitigation Measure 3.7-3 would require habitat loss compensation through the acquisition of lands as described in Policies CO 10.1.3, CO 10.1.11, and CO 10.1.12. These policies work to acquire open space needed to preserve and protect wildlife corridors and habitat, which may include land within SEA’s, wetlands, woodlands, water bodies, and areas with threatened or endangered flora and fauna. The policies also encourage the City to partner with conservation agencies and other entities to acquire and maintain open space, combining funding and other resources for joint-use projects, where appropriate.

Response 8

The comment states that the “greenbelt” exists only on paper because there are no incentives in the Plan for habitat protection. The comment also states that the proposed land uses will divide the Angeles National Forest and impede wildlife movement through the “Newhall Wedge” (area between SR-14 and I-5).

The City does not agree with these comments. The OVOV Plan uses the term “greenbelt” to describe the proposed open space areas that would surround the urbanized portions of Santa Clarita Valley. Much of this greenbelt is provided by the Angeles National Forest. The “greenbelt” concept is codified in Policy CO-10.1.1: Provide and protect a natural greenbelt buffer area surrounding the entire Santa Clarita Valley, which includes the Angeles National Forest, Santa Susana, San Gabriel, and Sierra Pelona Mountains, as a regional recreational, ecological, and aesthetic resource. In terms of planning for future development, the National Forest is an important part of the envisioned greenbelt surrounding the Santa Clarita Valley.

The land uses proposed under the OVOV Plan do not divide the Angeles National Forest boundaries; those boundaries have been divided by SR-14 for decades. The OVOV Plan proposes to extend the Santa Susana Mountains/Simi Hills SEA northeastward into the “Newhall Wedge” precisely to protect this important wildlife movement corridor. The primary land use designation in this area is Rural Land.

Response 9

The comment acknowledges the long-standing cooperation among SMMC, the City, and the County to protect open space. The comment also states that the City and County have the responsibility to permanently preserve habitat and must do so by reducing zoned densities in the rural land use categories. Finally, the comment states that the OVOV Plan relies too strongly on land acquisition to protect lands from development.

The City agrees that there has been excellent cooperation among SMMC, the City and the County on matters relating to open space protection, and anticipates that this cooperation will continue in the future. The City does not agree, however, that the City and County, by virtue of their authority to zone property, have sole responsibility for habitat preservation in the planning area. SMMC itself routinely acquires property for purposes of preserving open space and wildlife habitat; and it has done an excellent job in this role. The City assumes that SMMC's efforts in this regard will continue with assistance from the City and the County. The City was established an Open Space Assessment District with the sole purpose of acquiring land for the preservation of as open space through the planning area. Finally, the City does not concur that protecting open space through land acquisition is an inappropriate or inferior method of conserving habitat. Property ownership is among the best ways to control land uses and, through such control, protect open space for the public good. Again, SMMC exemplifies this concept in its pursuit of land preservation through acquisition.

Response 10

The comment recommends that the OVOV Plan's land use map be redrawn to provide guidance on habitat conservation. The comment also states that the proposed zoning density for many of the properties in the County's unincorporated area is one dwelling unit per two acres, even though many of the parcels in question are much larger than two acres. The comment recommends that the zoning density reflect the lot size to discourage land division. According to the comment, under such a regime, the only "by-right" development in rural areas would be one dwelling unit per parcel, "unless part of a deliberate growth management strategy or clustered existing community." The comment also recommends that the zone change from agricultural to residential include a mechanism to maintain connectivity and habitat resources.

As the comments address components of the OVOV Plan and not the content or adequacy of the Draft EIR, no further response is required. The OVOV Plan does have provisions for habitat conservation through the proposed SEA boundaries, which recognizes areas within the Planning Area with important biological resources requiring careful consideration during any land use entitlement application

processing. Where special-status biological resources are documents to occur, a project will be required to incorporate design features to avoid significant impacts to those resources.

The comment addresses the zoning of parcels in the unincorporated County and the zoning of these parcels is not related to the City's OVOV General Plan.

Response 11

The comment states that the greenbelt is meaningless because there is no definition for the term and no map depicting such areas. The comment asks how permanent protection of the greenbelt would be achieved. Finally, the comment recommends that movement corridors and habitat linkages be overlaid on a map to provide protection of these resources.

The comments address aspects of the OVOV Plan and not the content or adequacy of the Draft EIR. Therefore, no further response is required. However, the comments will be included as part of the record and made available for consideration by the decision makers prior to a final decision on the proposed project.

Response 12

The comment states that the Plan should "raise the bar for regional growth management by focusing on defined goals and measurable results." The comment identifies other cities and counties whose efforts in this regard have, in the opinion of SMMC, "fallen short." The commenter believes that the City can succeed where these other jurisdictions have failed. The comment expresses an opinion, but does not raise any issue relating to the content or adequacy of the Draft EIR. Therefore, no further response is required.

Response 13

The comment claims that the Circulation Element of the OVOV Plan proposes to double current road capacity and, therefore, is inconsistent with the plan's Conservation and Open Space Element. The City does not agree that the Circulation Element is inconsistent with the Conservation and Open Space Element of the OVOV Plan. However, SMMC's comments will be provided to the decision-makers for their consideration. As the comment does not address the content or adequacy of the Draft EIR, no further response is required.

Response 14

The comment states that the term greenbelt is ill-defined. The OVOV Plan uses the term "greenbelt" to generally describe the largely undeveloped areas surrounding urban uses.

This comment does not relate to the content or adequacy of the Draft EIR; therefore, no further response is required. However, the comment will be included as part of the record and made available for consideration by the decision makers prior to a final decision on the proposed project.

Response 15

The comment states that road widening in rural areas would irreparably damage wildlife movement, impede genetic exchange, and double vehicle-caused mortality of wildlife.

The City does not agree with the comment. The comment also is not supported by data or other specific documentation (see Pub. Resources Code, section 21153, subd. (c)). Each of the eight specified roadways currently exists and to some extent impedes wildlife movement, though none presents such a barrier as to make movement impossible. Further, there is no evidence that increased traffic on the roadways would significantly increase animal mortality or create an impenetrable barrier to wildlife movement. Section 3.7 Biological Resources of the Draft EIR analyzes the OVOV Plan's impacts on habitat connectivity and concludes that that the conversion of rural lands to urban uses – not the widening of existing roadways – would have the predominant impact on habitat connectivity.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required.

Response 16

The comment recommends that all road projects be removed from the OVOV Plan to “avoid decimating wildlife movement.” The comment also states that the proposed road extension and road widening projects would encourage residential development in the outlying portions of the planning area, forever altering the character of these rural communities.

The opinions expressed in the comment are those of the SMMC and not shared by the City. As the comment does not address any issue relating to the content or adequacy of the Draft EIR, no further response is required.

Response 17

The comment claims that groundwater recharge and water quality will suffer as a consequence of buildout of the OVOV Circulation Element.

The City does not agree with this claim, which is not supported by data or other specific documentation (see Pub. Resources Code, section 21153, subd. (c)). Section 3.12, Hydrology and Water Quality, of the Draft EIR analyzed the impacts to groundwater recharge and water quality and concluded that impacts can be reduced to less than significant, with roadway improvements comprising a minor contribution to

overall impacts. For example, the Draft EIR found that “[n]ew development projects within the City’s Planning Area can take such measures as utilizing building materials that allow infiltration, which in turn would reduce surface water runoff, recharge aquifers, and reduce impacts on water quality.” (Draft EIR, p. 3.12-27; see also Draft EIR, p. 3.12-14 to -16 [discussing (i) the use of LID techniques, as required by various OVOV Plan policies, to manage stormwater, enhance surface water quality, reduce runoff volumes, and economize on infrastructure costs]; p. 3.12-28 [Policy S 2.1.2 - promoting LID standards]; p. 3.12-29 [Policy CO 4.3.3 - providing flexibility in roadway design standards in order to facilitate stormwater retention and groundwater infiltration]; p. 3.12-30 [Policy CO 4.3.4 - encouraging use of pervious pavement].)

Response 18

The comment states that transportation drives development and that “misguided transportation investments would attract residential development to the periphery.” The City does not agree with this statement, which is not supported by data or other specific documentation (see Pub. Resources Code, section 21153, subd. (c)). Although transportation facilities provide the necessary access to newly developed areas, those facilities do not control where development will be proposed or eventually implemented. The City also disagrees with the suggestion that the Circulation Element’s capacity improvements are “misguided.” The OVOV Plan presents an orderly opportunity for the logical extension of existing urban and suburban communities.

The comment expresses opinions, but does not raise issues pertaining to the content or adequacy of the Draft EIR, no further response is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 19

The comment states that the Conservation and Open Space Element does not address edge effects on Southern California ecosystems. The comment also states that, in a setting such as the Santa Clarita Valley, creating on-site habitat is less important than preserving existing habitat in the first instance. In addition, the comment questions the long-term benefits of urban open space areas, as they tend to lower urban densities and thereby encourage expansion into rural areas. The comment recommends that off-site habitat acquisition be required when urban uses are allowed to develop in existing natural areas.

The City does not agree that the Conservation and Open Space Element fails to address edge effects. Objective CO-3.6 and associated Policies 3.6.1 through 3.6.5 are designed to minimize impacts of human activity and the built environment on natural plant and wildlife communities. The Conservation and Open Space Element Objective CO-3.1 encourages conservation of existing natural areas and restoration of damaged natural vegetation to provide for habitat and biodiversity. Objective CO-3.2 strives to protect

areas which, due to a specific type of vegetation, habitat, ecosystem, or location, possess exceptional biological resource value. See also **Response 8**, above, in regard to land acquisition.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. However, the City also points out that the Draft EIR discusses the OVOV Plan's edge effects, as well as measures and policies to reduce those effects. (See pages 3.7-49 - 53). The comment will be included as part of the record and made available for consideration by the decision makers prior to a final decision on the proposed project.

Response 20

The comment contends that the Conservation and Open Space Element recommends buffer widths of only 50 to 100 feet for wetlands and wildlife corridors, which the commenter believes is too narrow. The comment states that movement corridors should be designed to accommodate mountain lions, which requires buffers wider than 100 feet. Finally, the comment recommends that buffers for wetlands and movement corridors be no less than the distance required for fuel modification.

The commenter misreads the 50 to 100 feet buffer reference in the Conservation and Open Space Element. It states that this is a LEED recommendation only; the Conservation and Open Space Element itself does not recommend a specific width for the buffers. Instead, Policy CO-3.1.2 requires that *adequate* buffers be established to avoid adverse impacts on wetlands. Adequacy of buffer width would be determined upon a project-by-project basis. With respect to the suggestion that the width of habitat buffers be greater than or equal to the width of fuel modification zones, the City does not believe this is a sound policy. The size and location of fuel modification zones are dictated by public safety concerns; and sometimes the desire to preserve biological resources must yield to the need to protect human life. The City, however, strives to minimize these conflicts wherever possible. In addition, the width of a fuel modification buffer has no bearing on the required width of a wetland or wildlife movement buffer, as the two kinds of buffer serve different purposes. There is no need to arbitrarily make them equal in size.

The OVOV Plan recognizes the need to link open space areas to facilitate wildlife movement and would preserve as open space the Santa Clara River Corridor and its major tributaries to protect critical plant and animal species.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 21

The comment acknowledges the importance of the Significant Ecological Area (SEA) for biological resources considerations and recommends that the City adopt the County-proposed SEA boundaries.

City Task 6.2 is to recognize the Significant Ecological Area designations of Los Angeles County, and ensure adherence to SEA standards as a minimum condition of development approval in these areas.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 22

The comment states that the Plan lacks adequate protection for riparian resources and recommends that drainages be preserved in their natural condition.

The City disagrees with this comment, but will provide it to the decision-makers for their consideration. The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 23

The comment recommends that hard-bottomed channels be prohibited.

The City disagrees with this comment, but will provide it to the decision-makers for their consideration. The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required.

Response 24

The comment recommends that armored channel walls be prohibited unless there is no feasible alternative. Please see **Response 23**, above, for flood control design considerations.

The City disagrees with this comment, but will provide it to the decision-makers for their consideration. The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 25

The comment recommends that flood control improvements in Mint Canyon maximize riparian values.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. However, the comment will be provided to the decision-makers for their consideration. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 26

The comment recommends that bridges be free spanning of drainage channels and that concrete box culverts be used for private road crossings of drainages.

Specific designs for bridge construction and private road crossings are not part of the OVOV Plan. Design specificity will occur at the time the drainage crossings are needed and will balance the needs to protect natural resources while provided a cost efficient design to meet the circulation demands.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 27

The comment states that the OVOV Plan calls for multiple six or eight-lane bridges over the Santa Clara River.

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 28

The comment states that alternatives to bridge crossing and road alignments, such as transportation demand management solutions, must be evaluated.

To preface, Section 3.2, Transportation and Circulation, of the Draft EIR evaluated the OVOV Plan's traffic impacts. Section 3.2 concluded that, with implementation of the recommended mitigation measures, traffic-related impacts would be reduced to a level below significant. Therefore, CEQA does not require that alternatives to the Circulation Element and/or contemplated infrastructure improvements be considered. (See Cal. Code Regs., tit. 14, §15126.6(a) [requiring EIRs to describe a range of reasonable alternatives that "avoid or substantially lessen any of the significant effects of the project"].)

In any event, roadway systems are designed to balance mobility and access needs in an efficient manner. The OVOV Plan's Circulation Element has been developed to provide mobility and access while minimizing congestion and has been based on analysis of existing conditions in the Valley, future development in both City and County areas, and anticipated growth. Projects such as completion of the Cross-Valley Connector, the Via Princessa gap closure, and plans to create a new north-south connection through the center of the Valley (Santa Clarita Parkway), are examples of projects intended to increase connectivity. The Highway Plan contains the major and secondary highways, expressways, and parkways needed to meet the projected growth demands of the Valley. Alternatives to bridges and road alignments were considered in the development of the Highway Plan.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 29

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Ronald P. Schafer, Santa Monica Mountains Conservancy, October 5, 2009

Response 30

This comment identifies the agency's geographic area of interest as the Rim of the Valley Trail Corridor zone. No further response is required.

Response 31

The comment states that the SMMC has previously commented on the Los Angeles County General Plan update process and the natural resources of the Santa Clarita Valley.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 32

The comment requests that the Final EIR for the OVOV Plan respond to the various comments provided on the County's General Plan update. Both the OVOV planning process and the County General Plan update efforts have been ongoing simultaneously for several years and each is intended to be consistent with the other. However, without specific reference to earlier letters, it is not possible to respond to any

specific comments. Further, to the extent prior comments addressed the OVOV Plan but not the original or the Revised Draft EIR, no response to those comments is required under CEQA.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 33

The comment requests that the Significant Ecological Area (SEA) boundaries be clarified because, without such clarification, a proper analysis of the Plan's impacts on the SEAs cannot be conducted.

The comment also asserts that the Board of Supervisors must adopt the proposed new boundaries as part of the General Plan update before the OVOV Plan's impacts on the SEA's can be determined. The County does not agree because the SEA boundaries in the OVOV Plan and those of the General Plan update are the same. Therefore, the approved SEA boundaries will become effective with the approval of either land use plan. Currently, however, the County expects that the OVOV Plan will be approved first.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 34

The comment contends that the biological resources analysis in the Draft EIR is too simplistic and general to provide decision-makers proper information on the consequences of the Plan. The comment also states that programmatic EIRs should not be general in the analyses.

The County does not agree that Section 3.7, Biological Resources of the Revised Draft EIR is simplistic or too general. The section provides (1) an overview of the biological resources, including special-status resources, found in the Santa Clarita Valley, (2) an analysis of the Plan's impacts on those resources, and (3) feasible mitigation measures for avoiding or reducing those impacts. As a result, the Revised Draft EIR's biological analysis complies with CEQA.

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 35

The comment states that the proposed project and all of the alternatives, except Alternative 2, would result in unavoidable significant impacts to at least one biological resource. This statement is consistent with the conclusion drawn in the Revised Draft EIR under the heading Significance of Impacts with Mitigation Framework, starting on page 3.7-53 of Section 3.7, Biological Resources.

The comment simply restates information contained in the Revised Draft EIR. Therefore, no further response is required. However, the comment will be provided to the decision-makers prior to a final decision on the proposed project.

Response 36

The comment states that only Alternative 2, the Preservation Corridor Alternative, attempts to avoid impacts to biological resources, but that this alternative does not meet all of the project objectives. This statement is correct. The comment also indicates that Alternatives 2 was rejected because it does not adequately meet Project Objectives 14, 17, and 27. On this point, the comment is incorrect and mischaracterizes the text of the document. The Revised Draft EIR does not “reject” Alternative 2; nor does it conclude that Alternative 2 fails to adequately meet objectives 14, 17, and 17. The Revised Draft EIR merely states that Alternative 2 does not achieve these objectives as well as the proposed project does.

Response 37

The comment states that Project Objectives 14, 17 and 27 relate, respectively, to land use, neighborhood and mobility considerations for residents; affordable housing for the work force; and provision of an integrated transit system. The comment asserts that the Draft EIR fails to explain why Alternative 2 fails to meet these objectives.

As stated above in **Response 36**, the Revised Draft EIR does not “reject” Alternative 2 and does not conclude that Alternative 2 would fail to adequately meet objectives 14, 17, or 27. The Draft EIR states that Alternative 2 would not meet these objectives as well or to the same extent as the proposed project would. On page alternate 6.0-44, the Draft EIR explains this conclusion, stating that Alternative 2, when compared to the proposed project, would reduce the number of housing units available to the public and, for this reason, would be less effective in meeting the housing and transit goals of objectives 14, 17, and 27.

Response 38

The comment questions the conclusion that Alternative 2 reduces “ecological” impacts to less than significant when 15,000 acres of habitat would still be lost under this alternative.

As stated in the comment, the Revised Draft EIR concludes that Alternative 2 would reduce ecological impact to less than significant levels. This conclusion is based primarily on the following two factors: (1) Alternative 2 would help preserve the wildlife corridor linking the two parts of the Angeles National Forest, as described on page 6.0-21 of the Revised Draft EIR; and (2) Alternative 2 would reduce residential density in the nearly 6,000 acres of the wildlife corridor along the Santa Clara River (see pg. 66.0-24 of the Revised Draft EIR).

Response 39

The comment states that there is an inadequate range of alternatives in the Revised Draft EIR because only Alternative 2 addresses the reduction of impacts to biological resources.

The County does not agree with this statement. The discussion of alternatives focuses on alternatives that can feasibly avoid or substantially lessen one or more of the significant effects of the project as summarized on page 6.0-2 of the Revised Draft EIR. Impacts to biological resources are only one environmental factor considered in alternative designs. The alternatives discussion provides the decision makers with an understanding of the comparative merits of the alternatives in relation to the proposed project as indicated in Table 6.0-4.

Response 40

The comment states that Alternative 2 is flawed “for not including all areas in the Angeles Linkage (Soledad) Conceptual Protection Plan (CAPP) that implements the subject South Coast Wildlands core linkage elements.”

It is unclear from the comment why Alternative 2 must include all areas of the CAPP in order to qualify as a valid alternative under CEQA. The CAPP, which is described in the East Santa Clarita Land Conservation Concept Plan and Implementation Strategy prepared by the Riverside Land Conservancy in March 2008, is designed to address habitat connectivity and the preservation of landscape conditions that support wildlife movement between the Angeles National Forest separated by Highway 14 and intervening properties. There is no evidence that Alternative 2 would be inconsistent with the CAPP.

Response 41

The comment states that the Revised Draft EIR is deficient for not including and implementing the Angeles Linkage Conceptual Protection Plan (CAPP).

See **Response 41**.

Response 42

The comment states that the EIR is deficient if it fails to include an alternative that recognizes all scientifically described inter-mountain range wildlife corridors.

The County disagrees with the legal opinion set forth in the comment. The Revised Draft EIR provides an adequate description of wildlife movement corridors potentially affected by the proposed OVOV Plan. (See Section 3.7, Biological Resources of the Revised Draft EIR, pages 3.7-31, et seq.)

This portion of the biological analysis discusses the South Coast Wildlands San Gabriel-Castaic Connection and the Santa Clara River Enhancement and Management Plan Study, among other technical reports about wildlife corridors in the Santa Clara River watershed. An EIR need not be exhaustive in its assessment of any topic, but rather must provide decision makers with sufficient information to make an informed decision. The Revised Draft EIR meets this test.

Response 43

The comment states that the EIR is deficient because it does not include an alternative that would reduce development density along large habitat areas. The comment also states that “[r]andom reduction in density in such areas where terrain makes such development nearly infeasible does not constitute a fully analyzed effort to reduced impacts.” In addition, the comment contends that the EIR must explain “how the proposed density reductions will specifically reduce biological impacts in each affected watershed.” The comment recommends a watershed analysis of the reduction of biological impacts from development.

The County disagrees with the comment’s legal position as to what qualifies as an adequate alternative under CEQA. Further, the comment’s focus on reducing density near core habitat areas, while understandable, tends to exclude the wide variety of other, non-biological concerns that factor into the alternative development and review process. When assessing alternatives, the County must weigh all such factors in the balance. That the proposed project and alternatives call for achieving density reductions where development would be topographically difficult is not a failure to make a full effort to reduce impacts, as is suggested by the comment. On the contrary, this policy simply identifies for reduced density those areas where development pressure is expected to be light, thereby avoiding land use conflicts. This does not mean, however, that density reductions will only be proposed in those areas where the terrain makes development difficult. In some cases, prime development area is slated for density reductions, as in Alternative 2, which reduces density by more than 2,000 dwelling units in the nearly 6,000 acres between the two sections of the Angeles National Forest. The Revised Draft EIR does, in fact, provide a watershed analysis of biological impacts (See Section 3.7 Biological Resources), since the Planning Area is nearly coterminous with the Santa Clara River watershed within Los Angeles County.

Response 44

The comment states that although the OVOV Plan calls for increased protection for open space, such protection cannot be assured by changing land use designations alone. The comment also claims that the Revised Draft EIR, by its own admission, is nothing more than a policy document with no effect on zoning.

First, the County acknowledges that land use designations, by themselves, do not preserve open space. On-the-ground preservation requires more specific documents, such as conservation easements, to ensure the success of the open space plan. However, such documents and the implementation of their terms are beyond the scope of the OVOV Plan and this Revised Draft EIR. The County does not believe that the Revised Draft EIR describes itself as “nothing more than a policy document that has no effect on underlying zoning.” As a legal and practical matter, the Revised Draft EIR is neither a policy document nor a land use control document. Instead, it is an environmental assessment tool designed to inform decision-makers of the potential effects of a proposed project (in this case, the OVOV Plan) on the existing environment. It is then up to the lead agency (assuming it has the requisite jurisdiction) to make the appropriate policy and land use/zoning decisions.

Response 45

The comment states that the Draft EIR does not demonstrate how the OVOV plan can establish 4,098 acres of open space when there is no identified funding source for acquiring the lands in question.

The comment raises an economic issue that is beyond the scope of CEQA and this Revised Draft EIR. Therefore, no further response is required. However, the comment will be provided to the decision-makers prior to a final decision on the proposed project.

Response 46

The comment states that Mitigation Measure 3.7-3 is the only measure that addresses loss of habitat. The comment then complains that policies 10.1.3, 10.1.11 and 10.1.12, which are intended to implement Mitigation Measure 3.7-3, “have zero teeth, zero specifics and are basically totally pie in the sky-non-specific [sic] statements.”

The comment appears to misunderstand the level of detail required (and typically found) in planning documents and their guiding policies. One must keep in mind that no project may go forward as a result of the OVOV Plan and this Revised Draft EIR. Before any ground is broken, specific projects would have to be proposed, triggering the need for project-specific EIRs. These EIRs would include, among other things, mitigation measures and implementation strategies necessary to meet the broad conservation policies set forth in the OVOV Plan, including but not limited to policies 10.1.3, 10.1.11, and 10.1.12.

Response 47

The comment states that Plan policies 10.1.3, 10.1.11, and 10.1.12 do not qualify as mitigation measures because they cannot be verified. This is incorrect. As an initial matter, nothing in CEQA requires that mitigation measures include verification criteria. Further, Mitigation Measure 3.7-3, as well as policies 10.1.3, 10.1.11, and 10.1.12, are readily verifiable. They demand that feasible steps be taken to acquire land for open space preservation. If such acquisitions are made, then the Mitigation Measure has been satisfied. Given that land acquisitions, especially those undertaken by public agencies, are extremely well-documented, verification is not difficult. The comment also argues that the EIR is flawed without more substantial mitigation for habitat loss. Such a blanket statement, without reference to a particular defect in the mitigation analysis, makes it impossible to provide a full or detailed response. The commenter has presented no evidence that the mitigation measures proposed in the Revised Draft EIR are insufficient.

Response 48

The comment asks how the greenbelt of protected open space can be provided with more open space than exists today.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required.

Response 49

The comment states that project description does not provide sufficient precision regarding the greenbelt. The County does not agree. The project description is accurate, consistent, constant, and sufficiently detailed to allow a proper environmental analysis under CEQA. Nothing more is required.

Response 50

The comment complains that there is “no Land Use Green Belt map in the Draft EIR as is referenced to within the document.” The comment is in error. The Revised Draft EIR does not refer to a “Land Use Green Belt Map.” Nor is such a map required to comply with CEQA.

Response 51

The comment states that the Draft EIR’s assertions about expanding the greenbelt are inconsistent with the OVOV Plan’s proposal to reduce rural areas by 10,224 acres.

The comment does not address any issue pertaining to the analysis set forth in the Revised Draft EIR.

Moreover, the commenter provides no reference for the claim that the OVOV Plan would reduce rural areas by 10,224 acres. However, the comment will be provided to the decision-makers for their consideration.

Response 52

The comment asks what kind of greenbelt is proposed for the property previously described as Steen Ranch Phase V, roughly the area north of Pico Canyon Road, south of Newhall Ranch Specific Plan and west of the community of Stevenson Ranch. The greenbelt would consist of the Santa Clarita Woodlands Park to the south and the Newhall Ranch High Country Special Management Area to the south west.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 53

The comment quotes the statement from the EIR regarding “Land Use Element is designed to ensure that irreplaceable natural resources and open spaces are preserved and protected from encroachment by future development.” The comment continues that the Draft EIR is deficient because it includes assertions that are not backed by factual information in reference to loss of all open space being irreplaceable.

The Draft EIR incorporates information from the OVOV Plan as well as an analysis of the Plan land use designation and provisions and their potential impact on the environment. The Conservation and Open Space Element establishes a policy framework for the designation and long-term preservation of open space within the Planning Area. The proposed Area Plan does not contain policies that address the compensation for loss of habitats and open space when avoidance is considered infeasible. The proposed Area Plan proposes mitigation that would reduce impacts to less than significant. Therefore impacts would be less under the proposed Area Plan.

The comment restates information contained in the Revised Draft EIR and does not raise an environmental issue within the meaning of CEQA and, therefore, no more detailed response can be provided or is required. However, the comment will be provided to the decision-makers for their consideration. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 54

The comment states that the OS-C Conservation designation includes drainages and slope easements but these should be described as permanently disturbed open space. The County does not agree with this comment as slope easements would temporarily be disturbed during construction and would subsequently be revegetated. Drainage easements may require periodic disturbance for maintenance but this is not a permanent disturbance.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 55

The comment claims that the OVOV Plan and the Revised Draft EIR “essentially are a vehicle [sic] to change development density over hundreds of square miles.” The comment then states that the “vision of One Valley One Vision is to increase density in all but a few isolated pockets where terrain is prohibitive.” The comment expresses the opinions of the SMMC, which opinions are not shared by the County. As the comment does not raise any issue relating to the analysis set forth in the Revised Draft EIR, no further response is required. However, the comment will be provided to the decision-makers for their consideration.

Response 56

The comment states that land use policies are less important than land use designations for purposes of protecting the ecology of the Santa Clara River watershed. The County considers that the land use policies and the land use designations are both important in the long term planning of the Santa Clara River watershed.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 57

The comment states that OVOV Plan will result in significant “diminution of biological resources both within and around the edges of all existing development.” The County disagrees with this comment. As describe in the Revised Draft EIR, Section 3.7 Biological Resources, many of the OVOV Plan’s biological impacts can be mitigated to less than significant levels.

Response 58

The comment introduces recommendations that the commenter believes should be incorporated into each project alternative for purposes of expanding the greenbelt around developed areas, especially those along the Santa Clara River and its tributaries.

This comment is an introduction to comments that follow. No further response is required.

Response 59

The comment recommends the setback described in Land Use Policy 6.1.2 be increased from 50 to 75 feet. As an initial matter, Land Use Policy 6.1.2 makes no recommendation for river setbacks. (Policy LU 6.1.1 refers to a 50-foot setback but that is for ridgelines.) Second, while the County agrees that, in general, the wider the setback, the greater the protection for the river's resources, the size of each setback must be established on a case-by-case basis, taking into account topography and other factors unique to the location in question. The goal, however, is to achieve minimum setbacks of 100 feet.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 60

The comment recommends that riparian systems be provided with a natural upland buffer that will aide in protecting riparian wildlife corridors. The County agrees that protecting riparian corridors is important and this concept will be evaluated during development application processing.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 61

The comment recommends that land use designations RL2 and RL5 be changed to RL10, especially in the Soledad Canyon area.

This recommendation is consistent with Alternative 2. The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 62

The comment states that the Draft EIR must include specifics about capturing and infiltrating storm water.

Section 3.12, Hydrology and Water Quality, of the Revised Draft EIR discusses ground water recharge and water quality and concludes that impacts can be reduced to less than significant. Specifically, the assessment for Impact 3.12-1, provided on pages 3.12-21 through 3.12-24 of the Revised Draft EIR, considered whether the proposed project would create or contribute runoff that would exceed the capacity of the existing or planned stormwater drainage system, or provide substantial additional sources of polluted runoff. The analysis concluded that, with implementation of the identified OVOV Plan policies and adoption of recommended mitigation measures MM 3.12-1 and MM 3.12-2, impacts would be reduced to a level below significant. Please also see Response 18 above for additional responsive information. This comment will be made available to the decision makers prior to a final decision on the proposed project.

Response 63

The comment states that groundwater levels are dropping in the Santa Clara River east of Highway 14 and an increase in population and development density will significantly impact water supply.

Section 3.13, Water Service, of the Revised Draft EIR analyzed impacts on water resources within the Planning Area, including impacts associated with the adequacy of water supplies and groundwater recharge. Section 3.13 concluded that impacts within CLWA's service area and the East Sub-basin would be less than significant, such that no additional mitigation measures are required beyond those listed in the section. The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 64

The comment states that the Draft EIR must address critical habitat for California gnatcatcher and red-legged frog.

The Revised Draft EIR addresses critical habitat for both the California gnatcatcher and the red-legged frog under Impact 3.7-6 of Section 3.7, Biological Resources of the Revised Draft EIR (pg. 3.7-45).

Response 65

The comment states that the North Lake Specific Plan should be eliminated because it is obsolete.

The North Lake Specific Plan was approved in 1993 and has been proposed for modification. Any land use changes to the North Lake Specific Plan would be considered at the time such changes are actively proposed.

The comment does not raise any specific issue regarding the analysis presented in the Revised Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles County appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

NATIVE AMERICAN HERITAGE COMMISSION

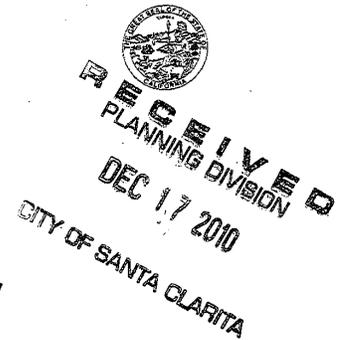
915 CAPITOL MALL, ROOM 364
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Web Site www.nahc.ca.gov
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December 14, 2010

Mr. Jason Smisko, Senior Planner

**City of Santa Clarita Department of Community
Development**

23920 Valencia Boulevard, Suite 302
Santa Clarita, CA 91355



Re: SCH#2008071133: CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the One Valley One Vision (OVOV), the Joint Valleywide General Plan Project; located in the Santa Clarita Valley; Los Angeles County, California

Dear Mr. Smisko:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources. (Also see *Environmental Protection Information Center v. Johnson* (1985) 170 Cal App. 3rd 604). The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amendment effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance. The lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. State law also addresses Native American Religious Expression in Public Resources Code §5097.9. The NAHC notes from a review of the Initial Study for the project that the State of California Native American Heritage Commission is not listed as a 'responsible' or trustee' agency with jurisdiction for this project. The State Historic Preservation Office is noted, but it has responsibility for applicable federal not state laws.

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The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural Resources were identified within the Santa Clarita Valley. But also, it is important to understand that the absence of archaeological, Native American cultural resources in an area does not indicate that they are not present, or will be present once ground-breaking activity begins. The NAHC recommends early consultation with Native American tribes in your area as the best way to avoid unanticipated discoveries once a project is underway and to learn of any sensitive cultural areas. Enclosed are the names of the culturally affiliated tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends

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that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes.

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Furthermore the NAHC recommends that you contact the California Historic Resources Information System (CHRIS) of the Office of Historic Preservation (OHP), for information on recorded archaeological data. This information is available at the OHP Office in Sacramento (916) 445-7000.

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Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the attached NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f] *et seq.*), 36 CFR Part 800.3, .4 & .5, the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 *Secretary of the Interior's Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes*. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e).

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Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'. Discussion of these should be included in your environmental documents, as appropriate.

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The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

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CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native American individuals as 'consulting parties,' on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy

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Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC

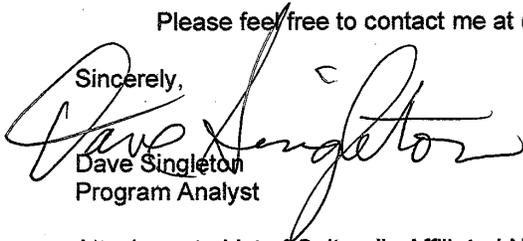
11

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

12

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,



Dave Singleton
Program Analyst

Attachment: List of Culturally Affiliated Native American Contacts

Cc: State Clearinghouse

Native American Contacts
Los Angeles County
December 14, 2010

Charles Cooke
32835 Santiago Road
Acton , CA 93510
suscol@intox.net

(661) 733-1812 - cell
suscol@intox.net

Chumash
Fernandeno
Tataviam
Kitanemuk

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks, CA 91362
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805 492-7255
(805) 558-1154 - cell
folkes9@msn.com

Chumash
Tataviam
Fernandefio

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Gabrielino Tongva
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310-570-6567

Fernandeno Tataviam Band of Mission Indians
Ronnie Salas, Cultural Preservation Department
601 South Brand Boulevard, Suite 102 Fernandeno
San Fernando CA 91340 Tataviam
ortega@tataviam-nsn.us
(818) 837-0794 Office
rsalas@tataviam-nsn.gov
(818) 837-0796 Fax

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez
981 N. Virginia Yowlumne
Covina , CA 91722 Kitanemuk
(626) 339-6785

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm.
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 Fernandefio
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tsen2u@hotmail.com Serrano
(661) 753-9833 Office Vanyume
(760) 885-0955 Cell Kitanemuk
(760) 949-1604 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2008071133; CEQA Notice of Completion; draft Environmental Impact Report (dIER) for the One Valley One Vision (OVOV), the Joint Valleywide General Plan; City of Santa Clarita; Los Angeles County, California.

Native American Contacts
Los Angeles County
December 14, 2010

Randy Guzman - Folkes

655 Los Angeles Avenue, Unit E
Moorpark , CA 93021

ndnRandy@yahoo.com

(805) 905-1675 - cell

Chumash

Fernandeño

Tataviam

Shoshone Paiute

Yaqui

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Department

26569 Community Center Drive Serrano
Highland , CA 92346

(909) 864-8933, Ext 3250

abrierty@sanmanuel-nsn.
gov

(909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2008071133; CEQA Notice of Completion; draft Environmental Impact Report (DIER) for the One Valley One Vision (OVOV), the Joint Valleywide General Plan; City of Santa Clarita; Los Angeles County, California.

**Letter No. B2 Letter from State of California, Native American Heritage Commission,
December 14, 2010**

Response 1

The comment provides factual background information regarding the Native American Heritage Commission's role as a "trustee agency" under the California Environmental Quality Act (CEQA) (see Cal. Code Regs., tit. 14, section 15386) and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The comment restates information contained in the Draft EIR, provides background information regarding the assessment of impacts to historical and archaeological resources under CEQA, and does not raise an environmental issue within the meaning of CEQA. The Native American Heritage Commission (NAHC) states that they were not listed as a "responsible" or "trustee" agency in the Initial Study and notes that the State Historic Preservation Office is responsible for applicable federal not state laws. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comments states that the Native American Heritage Commission performed a Sacred Lands File search for the One Valley One Vision (OVOV) Planning Area and identified Native American cultural resources within the Santa Clarita Valley. This finding is consistent with the OVOV Draft EIR which states "Sites of Native American cultural significance also exists within the City's Planning Area. Some are associated with archaeological sites; others are not otherwise recognizable. According to a recent study in the OVOV Planning Area, the Native American Heritage Commission (NAHC) identified three sites of Native American cultural significance in proximity to the Santa Clara River including CA-LAN-361, CA-LAN-366, and CA-LAN-367.²" Furthermore, implementation of Policy CO 5.3.1 by the City would notify any of the appropriate California Native American tribes via the contact list maintained by the California Native American Commission on a project-by-project basis. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

² CH2MHill 1996. Santa Clarita Valleywide General Plan Technical Background Report, 2004.

Response 4

The comment states that early consultation with Native American tribes is the best way to avoid unanticipated discoveries of cultural resources. The City distributed early consultation letters on June 18, 2008 to representatives of the following Native American tribes: Fernandeano Tataviam Band of Mission Indians, the Tribal Historical Cultural Committee, and the San Fernando Band of Mission Indians. Each of these three tribes is included on the NAHC list. To this date, none of the tribes has submitted comment on the Draft EIR.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 5

The comment recommends that a Native American monitor or culturally knowledgeable person be employed during the environmental planning processes. The Draft EIR is a programmatic document that analyzes potential impacts at a general level. Future development may require site-specific environmental documentation. Subsequently, Draft EIR Mitigation Measure MM 3.8-2 has been proposed which would require that a participant-observer, as determined by the appropriate Indian Band or Tribe shall be used during archeological testing or excavation at each individual project site. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 6

The comment suggests contact with the California Historic Resources Information System of the Office of Historic Research for information on recorded archaeological data. This finding is consistent with Table 3.8-1 in Section 3.8 Cultural Resources of the OVOV Draft EIR. Furthermore, Policies CO 5.1.1 to Policy CO 5.1.3 require review of appropriate documentations for sites identified on the actual and historic resources map (Figure 3.8-1) prior to issuance of any permits for grading, demolition, alteration, and/or new development, to avoid significant adverse impacts. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 7

The comment states that consultation with tribes and interested Native American tribes should be consulted in compliance with federal law, as appropriate, including the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA), and in compliance with state law (California Government Code 65040.12) regarding environmental justice.

The referenced laws apply to actions undertaken by federal agencies, and by the state Office of Planning and Research. Please see **Responses 3 and 4** above concerning consultation with Native American tribes undertaken in connection with the OVOV General Plan Draft EIR.

Response 8

The comment provides background information regarding the definition of “environmental justice” in Government Code section 65040.12(e) and does not appear to raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 9

The comment states that that the project must comply with Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 upon accidental discovery of any human remains during construction, which may require the cessation of construction or excavation. The City concurs with this statement. In response, Section 5097.98 and Mitigation Measure MM 3.8-3 require that upon discovery of additional artifacts during grading that, an archaeologist be notified to stabilize, recover and evaluate such finds. Also, Mitigation Measure MM 3.8-5 confines all grading activities and surface modifications to only those areas of absolute necessity to reduce any form of impact on unrecorded (buried) cultural resources that may exist within the project area; where archaeological and/or historical resources are found during construction, the construction activity in the immediate area of the discovery shall stop and a qualified archaeologist or paleontologist, as applicable, shall be contacted to evaluate the resource(s). Section 7050.5 for the most part echoes and requires compliance with Section 5097.98.

Response 10

The comment provides factual and legal background information only regarding the confidentiality of records for historic properties of religious and cultural significance, and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The comment outlines the requirements of the *State CEQA Guidelines* relating to Native American consultation and acknowledges agreements with Native Americans to ensure the appropriate treatment of Native American human remains. As indicated above in **Responses 3 and 4**, the City has conducted early consultation between Fernandño Tataviam Band of Mission Indians, the Tribal Historical Cultural Committee, and the San Fernando Band of Mission Indians.

Implementation of the proposed policies (CO 5.3.1 through 5.3.3) would require early consultation between Native Americans to identify the presence or likely presence of Native American human remains within the APE. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 12

The comment cites mandated procedures to be followed in the event of accidental discovery of human remains in any location other than a dedicated cemetery. The Draft EIR includes a mitigation measure that addresses these requirements see Mitigation Measure 3.8-7 (Draft EIR, p. 3.8-27). If human remains are found, all procedures from Health and Safety Code section 7750.5, Public Resources Code section 5097.9 and *State CEQA Guidelines* section 15064.5(d) will be followed. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMAN, Director



South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201
http://www.dfg.ca.gov

December 22, 2010

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Blvd. Suite 300
Santa Clarita, CA 91355
Fax #: (661) 286-4007

**Subject: Draft Program Environmental Impact Report for the City of Santa Clarita
One Valley One Vision (OVOV) General Plan, SCH 200807113,
Los Angeles County**

Dear Mr. Smisko:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Program Environmental Impact Report (DPEIR) for the One Valley, One Vision General Plan relative to impacts to biological resources. The Department understands the result of the project will be a comprehensive update of its General Plan document and PEIR for the buildout of the entire Santa Clarita Valley Planning Area. The Planning Area includes the City of Santa Clarita and its four communities Canyon Country, Newhall, Saugus, and Valencia and the County communities of Stevenson Ranch, Castaic, Val Verde, Agua Dulce, and the future Newhall Ranch. The Department supports the goal of the County and City working together to develop one seamless plan in order to address current and future needs for the public and for the conservation of the valuable natural resources within the planning area. The Department also understands that the process will require the adoption of two separate documents. The City will adopt a new General Plan and PEIR, while the County will adopt a new Area Wide Plan to replace the Santa Clarita Valley Area Wide Plan and prepare its own EIR.

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The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386) and pursuant to our authority as a Responsible Agency under the California Environmental Quality Act (CEQA), Section 15381 over those aspects of the proposed project that come under the purview of Fish and Game Code Section 1600 *et seq.* regarding impacts to streams and lakes.

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The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks forward to working with the City of Santa Clarita to minimize impacts to fish and wildlife resources with a focus on these stressors.

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The Department appreciates the thorough analysis of potential biological impacts contained in the DPEIR and General Plan documents. The Department supports policies and objectives to protect open space and native habitat. The Department agrees with the concept of focused development in core areas and the conservation of natural resources around and within the

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Conserving California's Wildlife Since 1870

planning area via parks and greenbelt. The Department staff will continue to work with City and County staff on open space conservation. One key to the greenbelt concept is to conserve large contiguous tracks of extant native habitat when feasible within the Angeles Linkage area and the San Gabriel and Santa Susana Mountains linkage area. The Department supports the concepts to reduce vehicular travel and support mass transit opportunities to reduce greenhouse gas impacts. The Department also supports the Significant Ecological Area (SEA) concepts and will continue to work with the City and County to evaluate projects within SEAs to minimize impacts to these high value ecological areas.

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To further aid in open space planning and reduce biological impacts within the planning area the Department recommends:

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- Continued coordination with Resource Agencies and Land Conservation Organizations to identify key conservation parcels within the Angeles Linkage and linkage between the San Gabriel's and Santa Susana Mountains and work with willing sellers to acquire the lands in fee or place conservation easements on the parcels.
- Coordination with Resource Agencies and Land Conservation Organizations to develop long term management plans and resource-assessment strategies for the open space areas within the greenbelt to insure long-term ecological functions and services are maintained while providing public recreational uses. Once biological resources are assessed and mapped, public use can be planned for specific areas and avoid areas with sensitive biological resources.
- Increasing the area of low density development where feasible (10 acre minimum rural lot size per dwelling) in the land use plan, to facilitate wildlife uses within the Angeles Linkage area and on parcels adjacent to Forest Service lands.
- Re-evaluating the Circulation Element that proposes to increase the road capacity within rural areas that are part of the greenbelt and consider not increasing the capacity when feasible. Widening these roads listed below would impact wildlife by increasing vehicle-caused mortality and would reduce wildlife movement. Construction of the road extensions and widening would also induce residential growth in the rural areas.
 - Aqua Dulce Canyon Road
 - Davenport Road
 - Escondido Canyon Road
 - Bouquet Canyon Road north of Copper Hill Drive
 - The Old Road south of Calgrove Blvd.
 - Placerita Canyon Road
 - Shadow Pines Blvd. proposed extension
 - Sierra Highway north of Vasquez Canyon Road
- Fully recognizing climate change factors in planning for water and fire suppression needs. Based on National Aeronautical and Space Agency data, the most recent meteorological year, which ran from December 2009 through November 2010, was the warmest in 131 years of record keeping. Nine out of the 10 hottest meteorological years on record have occurred since 2001. As stated in the PDEIR Global Climate Change section: "California must change its water management and uses because climate change will likely create greater competition for limited water supplies needed by the environment, agriculture, and cities. As directed by the recently signed water legislation (Senate Bill X71), state agencies must implement strategies to achieve a statewide 20 percent reduction in per capita water use by 2020." Conservative development planning in the near term would be prudent as statewide water management strategies are refined.

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Mr. Jason Smisko, Senior Planner
December 22, 2010
Page 3 of 3

- Strategic long term riparian habitat assessment along the Santa Clara River and its tributaries within the planning areas and within the entire Santa Clara River watershed will need to continue to insure habitat conservation and no reduction of surface flows, which supports the State Endangered and Fully Protected unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*).

10

Thank you for this opportunity to provide comments. Please contact Mr. Dan Blankenship, Staff Environmental Scientist, at (661) 259-3750 if you have any questions.

11

Sincerely,



Edmund Pert
Regional Manager
South Coast Region

cc: Department of Fish and Game
Helen Birss, Los Alamitos
Terri Dickerson, Laguna Niguel
Betty Courtney, Newhall
Dan Blankenship, Newhall

State Clearinghouse, Sacramento

Letter No. B3

Edmund J. Pert, California Department of Fish and Game, January 24, 2011

Response 1

The comment is introductory and provides background of the One Valley One Vision (OVOV) plan and supports the City of Santa Clarita (City) and County of Los Angeles (County) effort to develop a collaborative planning document.

Because the comment does not question the content or adequacy of the Draft EIR, no further response is required or provided. However, the comment will be included as part of the record and made available for consideration by the decision makers prior to a final decision on the proposed project.

Response 2

The comment describes the role of the California Department of Fish and Game (CDFG) under CEQA as a trustee agency.

Because the comment does not question the content or adequacy of the Draft EIR, no further response is required or provided. However, the comment will be included as part of the record and made available for consideration by the decision makers prior to a final decision on the proposed project.

Response 3

The comment states that CDFG is willing to work with the City to reduce impacts to fish and wildlife.

The comment provides important factual background information, but does not raise issues regarding the content or adequacy of the Draft EIR. Therefore, no further response is required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 4

In this comment, CDFG states that it appreciates the Draft EIR's thorough analysis of the plan's potential biological impacts and agrees with the plan's commitment to the conservation of natural resources. The comment also supports the Significant Ecological Area (SEA) program, the use of mass transit, and the reduction of vehicular traffic.

The comment provides important background information, but does not raise issues relating to the content or adequacy of the Draft EIR; therefore, no further response is required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 5

The comment recommends the continued coordination between the resources agencies and the City and County in identifying key parcels for public ownership or conservation easements in the Angeles Linkage Conceptual Protection Plan (CAPP) area and in the habitat linkage between the San Gabriel and Santa Susana Mountains.

Both the City and the County participated in the discussions for the CAPP and will continue to work cooperatively with resource agencies for the preservation of open space areas that preserve biological resources.

The OVOV Plan and the City have proposed the northeast extension of the Santa Susana Mountains/Simi Hills SEA into the habitat linkage between the San Gabriel and Santa Susana Mountains precisely to emphasize the importance of this area as a wildlife movement corridor. The primary land use designation in this area is Rural Land.

The City acknowledges this input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 6

The comment recommends the coordination between the resources agencies and the City and County to develop long term management plans for open space maintenance and recreational uses while avoiding areas with sensitive biological resources.

The City concurs that long term management of open space would be beneficial to both biological resources and recreational opportunities. The City has no formal open space management agency but works cooperatively with organizations such as the Santa Monica Mountains Conservancy to provide this service.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 7

The comment recommends an increase in the low density development (a 10-acre parcel minimum) in the land use plan to facilitate wildlife uses of the Angeles Linkage area.

The Angeles Linkage area is essentially an area contained within the slightly larger South Coast Wildlands identified San Gabriel-Castaic Linkage. The City has reduced densities in the outlying areas of its Planning Area (adjacent to Forest lands as an example).

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 8

The comment recommends that the City re-evaluate that portion of the Circulation Element, which proposes to increase road capacity in rural areas that are part of the greenbelt. According to the comment, road capacity should remain static in such areas, if feasible, as road widening tends to increase vehicle collisions with wildlife, resulting in higher animal mortality rates and diminished wildlife movement. The comment also indicates that road extensions and widening induce residential growth in rural areas.

In Section 3.2, Transportation and Circulation, the Draft EIR analyzes road capacity in relation to the development of circulation infrastructure. Roadway systems are designed to balance the needs of mobility against those of access, which are distinct (if not mutually exclusive) circulation concerns. Congestion problems occur when a street designed to provide *mobility* is expected to provide for *access* as well. The Circulation Element was developed to provide both mobility and access while minimizing congestion, and was based on analysis of existing conditions in the Valley, future development in both City and County areas, and anticipated growth.

That said, however, the City is committed to reducing the impacts of the circulation network on sensitive biological resources. For this reason, circulation infrastructure has been designed so as to reduce such impacts to the greatest extent feasible, especially in greenbelt areas where the potential for collisions between vehicles and wildlife may be high. The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 9

The comment recommends that the OVOV Plan recognize the role climate change plays in water and fire suppression planning. The comment also recommends that the OVOV Plan develop methods for conserving water.

The Draft EIR discusses climate change in Section 3.4, Global Climate Change, and discusses water resources and conservation in Section 3.13, Water Service.

The City acknowledges this input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 10

The comment states that riparian zones of the Santa Clara River would benefit from strategic conservation and restoration, which would expand habitat for the endangered unarmored threespine stickleback and other special-status fish species.

The City agrees that areas of the Santa Clara River floodplain would benefit from conservation and restoration, which could expand the habitat for unarmored threespine stickleback and other special-status aquatic species. The OVOV Plan supports conservation and restoration efforts in the Santa Clara River corridor and floodplain.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. Los Angeles City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 11

The comment is noted. No further response is required given that the comment does not address or question the content or adequacy of the Draft EIR.



Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Cathleen Cox
Acting Director

December 23, 2010

Jason Smisko
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355

Subject: One Valley, One Vision General Plan EIR
SCH#: 2008071133

Dear Jason Smisko:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 22, 2010, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter No. B4

**Letter from State of California, Governor's Office of Planning and Research,
December 23, 2010**

Response 1

The comment provides factual background information regarding the state agencies that received a copy of the Draft EIR from the State Clearinghouse and does not raise an environmental issue within the meaning of CEQA. The agencies that provided comments are included separately within this document. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.



Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Cathleen Cox
Acting Director

December 28, 2010

RECEIVED
PLANNING DIVISION

JAN 06 2011

Jason Smisko
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355

CITY OF SANTA CLARITA

Subject: One Valley, One Vision General Plan EIR
SCH#: 2008071133

Dear Jason Smisko:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on December 22, 2010. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2008071133) when contacting this office.

1

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter No. B5

**Letter from State of California, Governor's Office of Planning and Research,
December 28, 2010**

Response 1

The comment provides factual background information regarding the state agencies that submitted comments on the Draft EIR after the review period from the State Clearinghouse and does not raise an environmental issue within the meaning of CEQA. The agencies' comments are addressed separately within this document. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-9140
FAX: (213) 897-1337



FEB 11 2011
*Flex your power!
Be energy efficient!*

CITY OF SANTA CLARITA

February 8, 2011

IGR/CEQA No. 100953AL-DEIR
Referenced to
IGR/CEQA No. 0800808AL, NOP
One Valley One Vision
Vic. LA-05/126/14
SCH # 2008071133

Mr. Jeff Hogan
City of Santa Clarita
23920 Valencia Boulevard, Suite 302
Santa Clarita, CA 91355

Dear Mr. Glaser:

Thank you for including the California Department of Transportation (Department) in the environmental review process for the above referenced project. The One Valley One Vision (OVOV) project is a comprehensive update to the Santa Clarita Valley Area Plan. Its purpose is to establish common guidelines for new development that will lead to greater cooperation and an enhanced quality of life for residents of Santa Clarita Valley. The document received is a circulated Draft Program Environmental Impact Report (DPEIR).

1

According to Table 2-3: Valley-wide Land Use and Trip Generation (page 2-16) of the Valley-Wide Traffic Study (Appendix 3.2) dated June 2010, the existing land use (2004) is generating 1,487,994 vehicle trips, however, the OVOV Buildout condition will generate 3,288,386 vehicle trips. There is a 1.8 million increase of vehicle trips projected as a result of buildout of the proposed plan. Therefore, the proposed denser and transit-oriented development "One Valley One Vision" of the County of Los Angeles, City of Santa Clarita will have impacts on the I-5 and SR-14 and SR-126 Freeways in the Santa Clarita Valley.

2

In order to fully analyze the State facility under One Valley One Vision, we recommend the County provide the traffic analysis using the most recent data with Caltrans Guide for the Preparation of Traffic Impact Studies on SR-126, SR-14, and I-5 and all related on/off ramps. For example: Golden Valley and SR-14 interchange has the worse operational conditions and traffic improvements are needed at this location.

3

We understand that those impacts would be reduced by implementing the planned improvements to segments of I-5 and SR-14 through the Santa Clarita Valley. However, it is necessary to clarify whether the improvements will mitigate the impact or how much of the traffic impact will be mitigated in the traffic report.

4

"Caltrans improves mobility across California"

Mr. Jeff Hogan
February 8, 2011
Page 2 of 2

The funding for the planned improvements, on I-5 or SR-14, indicated in the traffic report is not finalized nor validated at this time. We request that both the City and County coordinate with Caltrans to establish an equitable mechanism by which cumulative transportation impacts to State highway system be addressed.

5

In the spirit of mutual cooperation, we would like to invite the lead agency, City of Santa Clarita to the Caltrans office to discuss traffic impact and fair share contributions towards planned freeway improvements. Please contact this office at your earliest convenience to schedule a meeting in the near future.

6

If you have any questions, please feel free to contact me at (213) 897-9140 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 100953AL.

7

Sincerely,



DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Caltrans improves mobility across California"

Letter No. B6 Letter from State of California Department of Transportation, February 8, 2011

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment restated portions of the OVOV Traffic Study. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment recommends that the County provide the traffic analysis using the most recent data and Caltrans Guidelines for the Preparation of Traffic Impact Studies on SR-126, SR-14 and I-5 and all related on/off ramps. The Draft EIR analyzes impacts to representative mainline segments of I-5 and SR-14 as part of the analysis of CMP facilities. This is sufficient to determine the overall operation of both of these freeways through the Santa Clarita Valley. Analysis of specific mainline segments and freeway ramps can be included as appropriate as part of traffic studies and EIRs for specific development projects. Any analysis of Caltrans facilities included in site-specific traffic studies will be completed in accordance with the Caltrans Guide for the Preparation of Traffic Impact Studies.

Response 4

The comment requests that the traffic study be clarified to show how the planned improvements to segments of I-5 and SR-14 will mitigate the impact or how much of the traffic impact will be mitigated. Please see Response to Comment 3. Any site-specific traffic study that analyzes Caltrans facilities and determines that one or more of these facilities are significantly impacted by project-related traffic will contain an evaluation of potential mitigation measures. All analyses will be prepared in accordance with the Caltrans Guide for the Preparation of Traffic Impact Studies.

Response 5

The comment suggested that the City of Santa Clarita and the County of Los Angeles coordinate with Caltrans to establish an equitable mechanism to address cumulative transportation impacts. As requested, the City and the County met with Caltrans on March 24, 2011. During this meeting the City and the County expressed a willingness to work with and support Caltrans and other agencies such as the MTA and the NCTC in their efforts to respond to and mitigate regional traffic impacts.

Response 6

The comment suggested that the City of Santa Clarita and the County of Los Angeles meet to discuss traffic impacts and fair share contributions towards planned freeway improvements. As requested the City and the County met with Caltrans on March 24, 2011. During this meeting the City and the County expressed a willingness to work with and support Caltrans and other agencies such as the MTA and the NCTC in their efforts to respond to and mitigate regional traffic impacts. This is illustrated by the following goals, objectives, and policies in the General Plan:

- Policy C-1.3.1:** Continue coordinating with the Metropolitan Transportation Authority (Metro) to implement the County's Congestion Management Program (CMP) for designated CMP roadways.
- Policy C-1.3.2:** Participate in updates to the CMP and collaborate with Caltrans and Metro to revise CMP impact thresholds, ensuring that they are adequate and appropriate.
- Policy C-1.3.4:** Coordinate circulation planning with the Regional Transportation Plan prepared by the Southern California Association of Governments (SCAG), to ensure consistency of planned improvements with regional needs.
- Policy C-1.3.5:** Continue coordinating with Caltrans on circulation and land use decisions that may affect Interstate 5, State Route 14, and State Route 126, and support programs to increase capacity and improve operations on these highways.
- Policy C 1.3.6:** Collaborate with Caltrans and Metro to implement the recommendations of the North County Combined Highways Corridors Study and support efforts by Metro to update this Study after SCAG adopts a Sustainable Communities Strategy
- Policy C-1.3.7:** Support the Golden State Gateway Coalition in its advocacy efforts to improve the Interstate 5 corridor, recognizing that the corridor facilitates regional and international travel that impacts the Santa Clarita Valley.
- Policy C-2.6.1:** Require that new development construct transportation improvements, or provide its fair share of the cost of such improvements, and ensure that required improvements or in-lieu contributions are in place to support the development prior to occupancy.
- Policy C-2.6.3:** Coordinate with Caltrans and other local, regional, state, and federal agencies in identifying and implementing funding alternatives for the Valley's transportation systems.

Response 7

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.



JERRY BROWN
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



February 11, 2011

RECEIVED
PLANNING DIVISION

FEB 17 2011

Jason Smisko
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355

CITY OF SANTA CLARITA

Subject: One Valley, One Vision General Plan EIR
SCH#: 2008071133

Dear Jason Smisko:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on December 22, 2010. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2008071133) when contacting this office.

1

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter No. B7 **Letter from State of California, Governor's Office of Planning and Research,
February 11, 2011**

Response 1

The comment provides factual background information regarding the state agencies that submitted comments on the Draft EIR after the end of review period (December 22, 2010) from the State Clearinghouse and does not raise an environmental issue within the meaning of CEQA. The agencies' comments were addressed separately within this document. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

**Castaic Union School District
Newhall School District
Saugus Union School District
Sulphur Springs Union School District
William S. Hart Union High School District**

November 3, 2010

RECEIVED
PLANNING DIVISION

NOV 08 2010

CITY OF SANTA CLARITA

Mr. Jason Smisko
Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 302
Santa Clarita, CA 91355

**Re: Draft Program Environmental Impact Report for City of Santa Clarita
OVOV General Plan, State Clearinghouse No.2008071133**

Dear Mr. Smisko:

Thank you for supplying the local school districts with draft copies of the One Valley One Vision (OVOV) General Plan and the associated DEIR. We offer the following observations and comments.

1

The DEIR states:

“Implementation of the proposed General Plan goals, objectives, policies, and Senate Bill 50 would reduce impacts on school districts to less than significant.” (3.15-2)

2

- 1) Payment of state mandated fees under SB50 will not mitigate the impact of future development because statutory fees alone cannot assure adequate school housing for children. They are the legal structure for mitigation, but they are simply insufficient. Any additional generation of students from new housing will stress the capacity of our school districts. We appreciate the concept that the plan’s “goals, objectives, and policies” will assist us in convincing developers that schools must be considered in the approval process. But without stronger and specified goals, objectives, and policies mitigation is not guaranteed, and therefore the DEIR should not state that these elements result in a reduction of the impact to “less than significant.” [We require mitigation agreements for all developers that insure full mitigation - a greater level of mitigation than statutory fees - and we look to the City and County to assist us in helping all developers understand this.

3

4

2) SB50 and good intentions are not enough. If we truly want to state that the goals, objectives, and policies mitigate to less than significant, we must have *specific* language that states the expectation and process for achieving this. We feel a stronger statement is needed in the EIR that communicates the expectation that developers will satisfy district needs, including the need to mitigate above and beyond statutory fee requirements, during the approval process.

5

The OVOV General Plan states:

“Master-planned communities such as Newhall Ranch, provide for school sites and funding mechanisms in their specific plans.” (L-38)

6

“As infill occurs in other portions of the planning area, however, it will be necessary to explore all options to alleviate over-crowding. Policies have been included in the General Plan to address coordination of land use planning with school facility planning.” (L-38)

- 1) We agree with the statement on master-planned communities and we would like the plan to clearly state that master planned communities can adequately mitigate for schools only through what are “full mitigation” agreements. [We would like to include the concept that full mitigation is possible only if these agreements include
- a. Sufficiently sized, pre-identified, and California Department of Education (CDE) and Department of Toxic Substances Control (DTSC) approvable land for school sites,
 - b. Funding guarantees and mechanisms regardless of the status of state funding,
 - c. Well –defined triggers for commencement of school construction, and
 - d. Definition of the necessary number and size of schools based on agreed upon student generation rates through build out of the project.

7

8

- 2) A basic concept of the OVOV plan is to reduce housing density in the outlying and unincorporated county areas while allowing denser housing in the core of the city. The larger developers’ planned communities usually occur in the outlying areas and the projects can be mitigated for schools with the proper agreements, as noted above. However, it is the density at the core that is most troublesome for existing schools.

9

- 3) Small, incremental development has been approved over the years, resulting in a piecemeal patchwork of small projects that have cumulatively overtaxed school capacity of our districts. This incremental approval in the past has effectively ignored appropriate regional planning of school facilities. We must find a better way and we believe the Plan should contain a strong statement about the necessity of small developers to work with each other and the city to

10

- a. Identify modifications to existing school sites to expand capacity. However, even this may be inadequate due to the desire to maintain schools at reasonable and manageable sizes.
- b. Identify adequate nearby land to construct new facilities in the core areas. This is extremely difficult when one small developer cannot be held responsible for a complete school. It is also difficult due to the lack of availability of adequate school acreage in the city's core. However, this discussion must be part of the incremental project approval process.

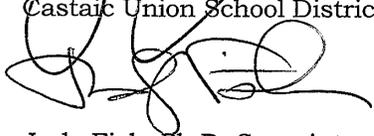
11

12

Yours truly,



James Gibson, Superintendent
Castaic Union School District



Judy Fish, Ph.D, Superintendent
Saugus Union School District



Robert Challinor, Superintendent
William S. Hart Union High School District



Marc Winger, Ed.D, Superintendent
Newhall School District



Robert Nolet, Ed.D, Superintendent
Sulphur Springs Union School District

Letter No. C1 **Letter from Castaic Union School District, Newhall School District, Saugus School Union School District, Sulpher Springs Union School District, William S. Hart Union School District, November 3, 2010**

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment restates information contained in the City of Santa Clarita OVOV Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenters stated that payment of state mandated fees do not mitigate the impact of future development because the fees alone cannot assure adequate housing for children. The commenters further noted that additional student will stress the capacity of the school district. The commenters conclude that without stronger goals, objectives and policies mitigation is not guaranteed, and therefore the Draft EIR should not conclude that impacts would be less than significant.

In an effort to work with the commenters, both the County of Los Angeles and City of Santa Clarita staff worked with the commenter and developed the following four policies that will assist the school district with meeting their goals:

Policy LU 8.1.12: The City, County and the school districts shall cooperate to identify appropriate land to construct new school facilities throughout the planning area. Annual information and update meetings between the planning agencies and the districts are encouraged.

Policy LU 8.1.13: In meeting state law for mitigation, there may be times when additional resources are required in order for the district to fully provide necessary services. Accordingly, Developers are encouraged to reach full mitigation agreements with the appropriate school districts impacted by their proposed project. Mitigation may include but might not be limited to modifications to existing school sites.

Policy LU 8.1.14: Developers of infill projects shall be aware of the potential cumulative effect that these smaller projects have on schools. Pre and Post construction, infill projects shall be monitored to evaluate student generation rates.

Policy LU 8.1.15: Proposed school sites shall be sufficiently sized, pre-identified and on California Department of Education and Department of Toxic Substances Control approvable land. Further site design considerations shall include appropriate pedestrian and bicycle access.

Response 4

The commenter's indicated that they require school mitigation agreements that ensure full mitigation rather than relying upon statutory fees and requested assistance from both the County of Los Angeles and City of Santa Clarita in this endeavor. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenters indicated that the requirements of SB 50 do not provide adequate mitigation for school district needs. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenters stated that master plan communities can adequately mitigate for schools only through "full mitigation" agreements. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenter provided suggested policies in order to meet full mitigation. In an effort to work with the commenters, both the County of Los Angeles and City of Santa Clarita staff worked with the commenter and developed the following four policies that will assist the school district with meeting their goals. These policies are described above in **Response 3**.

Response 9

The commenter stated that a basic concept of OVOV was to place higher densities from outlying areas into the core of the city. The commenters noted that most large developments occur in the outlying areas and density at the core is the most troublesome for existing schools. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The commenters noted that small incremental development approved over the years and cumulatively impacted the school districts. The commenter suggested that small developers need to work with the school districts. **Response 3** above, "Policy LU 8.1.14: Developers of infill projects shall be aware of the potential cumulative effect that these smaller projects have on schools. Pre and Post construction, infill projects shall be monitored to evaluate student generation rates" addresses this concern.

Response 11

The commenters suggested identifications of modifications to existing school sites to expand capacity. Yet this may be undesirable given the desire to maintain schools at reasonable and manageable sizes. **Response 3** above, "Policy LU 8.1.14: Developers of infill projects shall be aware of the potential cumulative effect that these smaller projects have on schools. Pre and Post construction, infill projects shall be monitored to evaluate student generation rates" addresses this concern.

Response 12

The commenter suggested identification of adequate nearby land to construct new facilities in the core areas-however difficult this may be. **Response 3** above, addresses this concern with the following: "Policy LU 8.1.15: Proposed school sites shall be sufficiently sized, pre-identified and on California Department of Education and Department of Toxic Substances Control approvable land. Further site design considerations shall include appropriate pedestrian and bicycle access."



Office of
AGRICULTURAL COMMISSIONER
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Telephone: (805) 477-1620 Ext. 7
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Agricultural Commissioner
Henry S. Gonzales

Chief Deputy
Susan Johnson

November 5, 2010

Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 302
Santa Clarita, CA 91355

Sent Via Email: jsmisko@santa-clarita.com

Subject: Notice of Availability and Notice of Completion for Draft Program
Environmental Impact Report for City of Santa Clarita One Valley One Vision (OVOV)
General Plan Update

Dear Mr. Smisko:

Thank you for the opportunity to comment on the content of the Environmental Impact Report for the City of Santa Clarita OVOV General Plan.

1

Project Description: The Draft General Plan sets out a long-range vision and comprehensive policy framework for how the city should grow and develop, provide public services, and maintain the qualities that define Santa Clarita over the next 20 years. Goals and policies will be developed within, among other elements, a Draft Land Use Element and Draft Conservation and Open Space Element. These elements discuss the City's policies regarding the preservation of agricultural activities.

2

Location: City of Santa Clarita One Valley One Vision encompasses the entire incorporated City of Santa Clarita and its adopted sphere of influence in the unincorporated Los Angeles county areas, approximately 53,000 acres. The planning area is situated at the convergence of Los Angeles and Ventura counties. The map on Page I-6 shows the OVOV Planning Area.

3

Scope of Comments: The Ventura County Agricultural Commissioner's staff comments on Agricultural Resources – Land Use Incompatibility.

4

Local CEQA guidelines used by the Agricultural Commissioner's staff are viewable at:

www.ventura.org/agcommissioner at the Land Use page. Land Use Incompatibility is Topic 5b.

4

Evaluation of Land Use Incompatibility with Adjacent Farmland. The evaluation of the Ventura County Agricultural Commissioner's Office pertains to the applicability of buffers or extended setbacks for the benefit of off-site farmland. Off-site farmlands include those lands classified as Prime Farmland, Statewide Importance Farmland, Unique Farmland and Local Importance Farmland on the California Important Farmland Inventory Map (Ventura County, 2008).

5

These farmlands are present at the common boundary area between Ventura County and Los Angeles County, primarily along the SR-126 highway corridor.

6

Recommendation: Where new non-agricultural uses such as housing, commercial buildings, or industrial structures will be built in areas adjacent to the Ventura County boundary, and where Important Farmlands are present at the off-site interface, the following extended setbacks for the benefit of agricultural lands are recommended on the property to be developed:

7

- One quarter-mile for schools
- 300 feet for new structures or populated outdoor uses
 - Or 150 feet, with a vegetative landscape barrier

Thank you for the opportunity to comment.

8

This letter has been reviewed by Susan Johnson, Chief Deputy Agricultural Commissioner.

If you have any questions about this letter, please contact me at the telephone number or email address below.

Sincerely,

Rita Graham
Agricultural Land Use Planner
(805) 477-1620 Ext 7
rita.graham@ventura.org

— Serving Ventura since 1895 —

Letter No. C2 **Letter from County of Ventura, Office of Agricultural Commissioner,
November 5, 2010**

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment provides factual background information only regarding the County of Ventura CEQA Guidelines, and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The comment provides background information on the evaluation of land use incompatibility with adjacent farmland in the County of Ventura, and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The comment states that farmlands are present at the common boundary area between Ventura County and Los Angeles County, primarily along the SR-126 highway corridor. The City's Planning Area does not extend to the Ventura County line, as shown on Figure 3.5-1, Farmland Designations within the OVOV Planning Area and therefore does not contain farmland along the Ventura/Los Angeles County border. The comment does not raise an environmental issue within the meaning of CEQA.

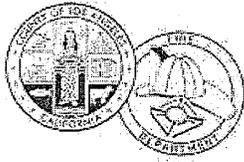
The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

Please see **Response 6** above. The City's Planning Area does not extend to the Ventura/Los Angeles County border. The Interstate 5 freeway is the furthest western boundary for the City Planning Area. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 8

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.



COUNTY OF LOS ANGELES
FIRE DEPARTMENT
1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 890-4330

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

November 17, 2010

Jason Smisko, Senior Planner
City of Santa Clarita
Department of Community Development
23920 Valencia Blvd.
Santa Clarita, CA 91355-2196

Dear Mr. Smisko:

NOTICE OF AVAILABILITY AND COMPLETION/DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT, GENERAL PLAN/LAND USE MAP (11X17), STATE CLEARINGHOUSE #20080711133, SANTA CLARITA (FFER #201000190)

The Notice of Availability and Completion/Draft Program Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

1

PLANNING DIVISION:

We have reviewed the Draft Program Environmental Impact Report for the One Valley One Vision (OVOV) General Plan. Our comments are highlighted in bold as follows:

2

Executive Summary Table ES-1 - 3.15 Public Services - Fire Protection Project Impacts

- 1. Sentence 1: Fire protection within the City's Planning Area is supplied by the Los Angeles County Fire Department (LACoFD) with 44 13 stations currently serving the OVOV Planning Area.
2. Sentence 3: The 2008 2009 median response time for the City's Planning Area was 5 minutes 24 seconds.

3

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

Table listing various cities and areas served by the fire department, including Agoura Hills, Arroyo Grande, Azusa, etc.

Recommended Mitigation Measures (3.15-2)

3. Sentence 2: A special tax was approved in 1997 to pay for essential fire suppression and emergency medical services and is billed on the Joint Consolidated Annual Tax Bill under Detail of Taxes, Due, Direct Assessments with the common rates being \$49.03 \$56.17 for a single-family residence; \$63.07 \$70.95 + &0.0064 \$0.0072 per square foot over 1,555 square foot for a multiple-family residence; and \$60.43 \$67.98 + \$0.0407 \$0.0458 per square foot over 1,555 square foot for commercial/industrial.

4

3.15 Public Services Fire Protection Summary

4. Paragraph 1, sentence 4: The 2008-2009 median response time for the City's Planning Area was 5 minutes and 24 seconds.
5. Paragraph 1, sentence 5: The standard response time for Los Angeles County Fire Department is 5 minutes or less. The Fire Department uses national guidelines of a 5-minute response time for the 1st-arriving unit for fire and EMS responses and 8 minutes for the advanced life support (paramedic) unit in urban areas, and 8-minute response time for the 1st-arriving unit and 12 minutes for advanced life support (paramedic) unit in suburban areas. The City of Santa Clarita is a mix of urban/suburban area.

5

6

Existing Conditions - Provider and Facilities

6. Paragraph 1, sentences 6, 7 and 8: In 2007, there were two ~~There are currently three~~ temporary fire stations, with the County moving ahead to build an additional two fire stations, ~~as well as replace the three temporary fire stations,~~ within the OVOV Planning Area ~~in the next 2 years~~. It is expected that by 2016, 15 new stations will be built ~~operational~~. Since ~~In~~ 2008, the Department has undertaken ~~completed the~~ construction of Station 108 on Rock Canyon, and has established temporary Station #156 on Copperhill, #132 on Sand Canyon, and #104 on Golden Valley.

7

Table 3.15-7 Fire Station Facilities

Station	Location
Fire Station 73*	24875 N. San Fernando Road Newhall, CA 91321
Fire Station 76 ¹	27223 Henry Mayo Drive Valencia, CA 91355
Fire Station 81 ¹	8710 W. Sierra Highway Agua Dulce, CA 91350
Fire Station 104 (Temporary)	26201 Golden Valley Road Santa Clarita, CA 91359

Fire Station 107*	18239 W. Soledad Canyon Canyon Country, CA 91351
Fire Station 108 (New station opened 11/1/2008)	28799 N. Rock Canyon Drive Santa Clarita, CA 91390
Fire Station 111*	26829 Seco Canyon Road Saugus, CA 91350
Fire Station 123	26321 N. Sand Canyon Road Canyon Country, CA 91387
Fire Station 124* ¹	25870 Hemingway Avenue Stevenson Ranch, CA 91381
Fire Station 126	26320 Citrus Street Santa Clarita, CA 91355
Fire Station 132 (Temporary)	29310 Sand Canyon Road Santa Clarita, CA 91387
Fire Station 149* ¹	31770 Ridge Route Castaic, CA 91384
Fire Station 156 (Temporary)	24525 Copper Hill Drive Valencia, CA 91354

* = Outside City boundaries (including SOI)
 * = Paramedic Units

7

Volume of Calls

7. In 2007-2009, the Fire Department stations in the OVOV Planning Area responded to 40,433 11,031 calls within the City's Planning Area, of which 345,278 were fire and 40,418- 10,753 were non-fire and emergency medical services, Table 3.15-8, Fire Incidents. The Fire Department also responded to 49 6 hazardous materials calls, including reports of hazardous conditions. The 2008-2009 median response times throughout the City's Planning Area were 5 minutes and 24 seconds. The Department goals for response times 1st-arriving units are

- Urban 5.0 minutes or less
- Suburban 8.0 minutes or less
- Rural 12 minutes or less

8

Table 3.15.-8 - Fire Incidents

Incident Type	City's Planning Area
Fire	278
EMS	7,963
Other	2,790
Total	11,031

Fire Service Funding

8. The LACoFD Fire District provides fire protection and emergency medical services to the City. The majority of funding for fire services is obtained through property taxes. Additionally, voters in the Fire District approved a special tax in 1997 to pay for essential fire suppression and emergency medical services. The special tax is billed on the Joint Consolidated Annual Tax Bill under Detail of Taxes Due, Direct Assessments. The most common rates are single family residence-~~\$49.93~~ \$56.17; multiple-family residence-~~\$63.07~~ \$70.95 + ~~\$.0064~~ \$.0072 per square foot over 1,555 square foot; and commercial/industrial - ~~\$60.43 + \$0.0407~~ \$67.98 + \$.0458 per square foot over 1,555 square foot.

9

Impact Analysis

9. Paragraph 3, sentence 3: There are currently seven fire stations within the City's Planning Area (or City limits) and an additional **two** stations within the City's adopted SOI (Figure 3.15-3).
10. Paragraph 7, last sentence should be amended to read: Additionally, fire stations would also be funded by the County of Los Angeles Developer Fee Program for the Benefit of the LACoFD and developer fee revenues generated in the City of Santa Clarita.

10

11

Mitigation Framework - MM 3.15-2

11. Sentence 2: A special tax was approved in 1997 to pay for essential fire suppression and emergency medical services and is billed on the Joint Consolidated Annual Tax Bill under Detail of Taxes, Due, Direct Assessments with common rates being ~~\$49.93~~ \$56.17 for a single family residence; ~~\$63.07~~ \$70.95 + ~~\$.0064~~ \$.0072 per square foot over 1,555 square foot for a multiple-family residence; and ~~\$60.43 + \$0.0407~~ \$67.98 + \$.0458 per square foot over 1,555 square foot for commercial/industrial.

12

LAND DEVELOPMENT UNIT:

1. The Land Development does not have specific access and water systems requirements at this time. Access and water system requirements will be addressed with the submittal of plans. Any changes to circulation; street design, including the installation of traffic calming measures; or the water system, plans will need to be submitted to the Land Development Unit for review. Please call (323) 890-4243 to contact the Land Development Unit.

13

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Our response dated December 14, 2009, remains unchanged.

14

Jason Smisko, Senior Planner
November 17, 2010
Page 5

HEALTH HAZARDOUS MATERIALS DIVISION:

1. The Health Hazardous Materials Division has no objection to the proposed project. However, any site in the project area with historical use/storage of hazardous materials proposed for redevelopment should assess/mitigate the site under oversight of a State or local governmental agency.

15

If you have any additional questions, please contact this office at (323) 890-4330.

16

Very truly yours,



for JOHN R. TODD, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

JRT:lj

Letter No. C3 Letter from County of Los Angeles Fire Department, November 17, 2010

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The requested correction concerning the number of fire stations within the One Valley One Vision (OVOV) Planning Area to Executive Summary Table ES-1, page ES-54 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 3

The requested correction concerning the median response time for the year 2008 to Executive Summary Table ES-1, page ES-54 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 4

The requested correction concerning the common rates identified in Mitigation Measure MM 3.15-2 to the Executive Summary, page ES-54 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 5

The requested correction concerning the median response time for the year 2008 to Section 3.15, Public Services – Fire Protection, page 3.15-3 and 3.15-34 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 6

The requested correction concerning the response time to Section 3.15, Public Services – Fire Protection, page 3.15-34 and 3.15-36 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 7

The requested correction concerning existing conditions provider and facilities information in Section 3.15, Public Services – Fire Protection, page 3.15-38 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 8

The requested correction concerning existing conditions volume of calls information in Section 3.15, Public Services – Fire Protection, page 3.15-34 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 9

The requested correction concerning fire service funding information in Section 3.15, Public Services – Fire Protection, page 3.15-40 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 10

The requested correction concerning the impact analysis information in Section 3.15, Public Services – Fire Protection, page 3.15-48 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 11

The requested correction concerning the impact analysis information in Section 3.15, Public Services – Fire Protection, page 3.15-49 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 12

The requested correction concerning the common rates identified in Mitigation Measure MM 3.15-2 to Section 3.15, Public Services – Fire Protection, page 3.15-53 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 13

The comment provides information concerning the land development unit that does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 14

The comment provides factual and legal background information only regarding the responsibilities of the Forestry Division of the Los Angeles County Fire Department, and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The comment states that any future site within the City's Planning Area with historical use/storage of hazardous materials proposed for redevelopment should assess/mitigate the site under oversight of a State or local government agency. The proposed OVOV City of Santa Clarita General Plan contains policies identifying hazardous materials sites within the community such as Policies S 4.1.1 and 4.1.2

Policy S 4.1.2 ensures that coordination, "with other agencies to address contamination of soil and groundwater from hazardous materials on various sites, and require that contamination be cleaned up to the satisfaction of the City and other responsible agencies prior to issuance of any permits for new development."

The Whittaker-Bermite property, the most significant site containing hazardous materials that could potentially impact residents and employees in the City's Planning Area, would receive continued support for clean-up efforts and re-use plans through implementation of Policy S 4.1.1.

The comment provides information that does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 16

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

November 19, 2010

File No: SCV-00.04-00

RECEIVED
PLANNING DIVISION

NOV 29 2010

CITY OF SANTA CLARITA

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355

Dear Mr. Smisko:

One Valley One Vision (OVOV), the Joint Valleywide General Plan

The Santa Clarita Valley Sanitation District (District) received a Draft Environmental Impact Report (DEIR) for the subject project on September 24, 2010. We offer the following comments and updates regarding sewerage service:

1

- 1. Tables 3.4-45 and 3.4-46 of the OVOV DEIR. These tables contain estimates of existing and proposed (i.e., proposed General Plan and Area Plan) annual greenhouse gas (GHG) emissions, respectively, from various sources including wastewater treatment. The wastewater GHG emissions calculations in the DEIR (Appendix 3.4) are derived from electrical use and process emissions. The process emissions value of 6,561.63 MT CO2 e/yr (from implementation of both plans) was based on the amount of methane generated utilizing a methodology per the U.S. Environmental Protection Agency (EPA), AP-42 Compilation of Air Pollutant Emission Factors, 1998.

2

During the wastewater treatment process, methane is produced in sealed tanks from anaerobic digestion of degradable organic material removed from the wastewater. The methodology in AP-42 assumes that all the methane generated by the treatment process is emitted to the atmosphere. This assumption is not correct. Organic material removed at both of the District's treatment plants is managed at the District's Valencia Water Reclamation Plant (VWRP). Methane from the anaerobic digesters at VWRP is collected and combusted in a flare or boiler. Only a very small fraction of methane escapes combustion. The U.S. EPA publication Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008 (released in April 15, 2010) includes a destruction efficiency factor assuming that one percent of methane is uncombusted. However, based on emissions tests at the VWRP, the uncombusted amount of methane is significantly less than one percent. Combusted methane forms CO2, which is a carbon-neutral biogenic emission in this case because the CO2 formed is part of the natural carbon cycle (waste decomposes to CO2, which is taken up by plants, which are consumed by humans and animals and then excreted as waste). Therefore, the process emissions value in the DEIR overestimates actual GHG emissions from the District's treatment of wastewater by two

3

Doc #: 1735347.1



orders of magnitude. The District requests that these GHG emissions calculations be revised to account for the capture and subsequent destruction of methane that occurs at VWRP.

3

2. The District is not responsible for the water treatment needs of the Santa Clarita Valley. Please revise as follows: (1) *Page 3.17-1, second paragraph*, "...construction of new ~~water~~ or wastewater treatment facilities or expansion of existing facilities..." (2) *Page 3.17-16, second paragraph*, "...construction of new ~~water~~ or wastewater treatment facilities or expansion of existing facilities..."

4

3. *Page 3.17-4, first paragraph, last sentence*: "The SCVJSS currently processes an average flow of ~~20.8~~ 20.3 mgd."

5

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

6

Very truly yours,

Stephen R. Maguin



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

c: M. Bina
B. Langpap

Letter No. C4 **Letter from County Sanitation Districts of Los Angeles County,
November 19, 2010**

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment from the Santa Clarita Valley Sanitation District (District) states that the estimated GHG emissions from wastewater treatment are overstated by two orders of magnitude. According to the District, the methane generated from the anaerobic digesters at the Valencia Water Reclamation Plant (VWRP) is collected and combusted in a flare or boiler. The GHG emission calculations for wastewater treatment used methodologies and factors from the US Environmental Protection Agency's *AP-42 Compilation of Air Pollutant Emissions Factors* (AP-42), 1998. The AP-42 methodology assumes that none of the methane from the wastewater treatment process is recovered for energy or flared. However, according to the District's comment, "based on emissions tests at the VWRP, the uncombusted amount of methane is significantly less than one percent." The District requests that the GHG emissions calculations be revised to account for the capture and subsequent destruction of methane that occurs at the VWRP.

Based on the District's comment, assuming a conservative recovery value of 99 percent (1 percent emitted to the atmosphere), the GHG emissions from the wastewater treatment process would be reduced to approximately 38 metric tons of carbon dioxide equivalents (MTCO_{2e}) per year under existing conditions and 66 MTCO_{2e} per year at full buildout under the OVOV General Plan and Area Plan. The emissions under the existing General Plan would be approximately 67 MTCO_{2e} per year.

When combined with the electricity-related wastewater treatment GHG emissions, the total wastewater GHG emissions would be reduced to approximately 15,041 MTCO_{2e} per year under existing conditions and 20,631 MTCO_{2e} per year at full buildout under the OVOV General Plan and Area Plan. The emissions under the existing General Plan would be approximately 20,632 MTCO_{2e} per year. The revised GHG emissions from wastewater treatment, as described above, have been made on pages 3.4-45, 3.4-45, and 3.4-46 in Section 3.4, Global Climate Change, of the Final EIR. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 4

The commenter noted corrections to the Draft EIR in Section 3.17, Utilities and Infrastructure. The requested correction to Section 3.17, Utilities and Infrastructure, pages 3.17-1 and 3.17-16 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 5

The requested correction to Section 3.17, Utilities and Infrastructure, page 3.17-4 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 6

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

RESOURCE MANAGEMENT AGENCY

county of ventura

Planning Division
Kimberly L. Prillhart
Director

December 22, 2010

City of Santa Clarita
Attn.: Jason Smisko
23920 Valencia Blvd, Ste. 300
Santa Clarita, CA 91355-2196

E-mail: jsmisko@santa-clarita.com

Subject: Comments on the Draft General Plan and Program EIR for One Valley One Vision, the Joint Valleywide General Plan

Dear Mr. Smisko:

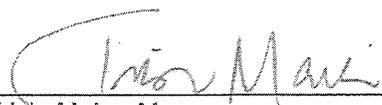
Thank you for the opportunity to review and comment on the subject document. Attached are the comments that we have received resulting from intra-county review of the subject document. Additional comments may have been sent directly to you by other County agencies.

Your proposed responses to these comments should be sent directly to the commenter, with a copy to Laura Hocking, Ventura County Planning Division, L#1740, 800 S. Victoria Avenue, Ventura, CA 93009.

If you have any questions regarding any of the comments, please contact the appropriate respondent. Overall questions may be directed to Laura Hocking at (805) 654-2443.

1

Sincerely,


Tricia Maier, Manager
Program Administration Section

Attachment

County RMA Reference Number 08-032-1



800 South Victoria Avenue, L# 1740, Ventura, CA 93009 (805) 654-2481 Fax (805) 654-2509

Printed on Recycled Paper





**PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
Traffic, Advance Planning & Permits Division**

MEMORANDUM

DATE: December 21, 2010

TO: RMA – Planning Division
Attention: Laura Hocking

FROM: Behnam Emami, Engineering Manager II

SUBJECT: REVIEW OF DOCUMENT 09-045-1 Notice of Availability and Notice of Completion (NOA/NOC) and Draft Program Environmental Impact Report (PEIR) for the **One Valley One Vision (OVOV)**.
A joint effort between the City of Santa Clarita (City), the County of Los Angeles (County), and Santa Clarita Valley (Valley) residents and businesses to create a single vision for future growth.
Lead Agency: **City of Santa Clarita**

Pursuant to your request, the Public Works Agency -- Transportation Department has reviewed the NOA/NOP and PEIR for the OVOV. The purpose of the "project" is to prepare planning policies and guidelines to guide future development within the Santa Clarita Valley in the County of Los Angeles. The Santa Clarita Valley extends from the City of Ventura in the County of Ventura east to the City of Santa Clarita in the County of Los Angeles.

2

We offer the following comment:

Our comments from the Memorandums dated August 14, 2008 and September 21, 2009 for our Project Numbers 08-032 and 09-045 are still valid. The comments are summarized here below. Site-specific and cumulative impacts to the County of Ventura Regional Road Network were not addressed in the PEIR. Site-specific and cumulative impacts to Ventura County roadways should be addressed in the final PEIR.

3

- a) When future developments are proposed, the projects may have site specific and/or cumulative impacts on County of Ventura roadways. The subsequent environmental document(s) for this (these) project(s) should include any site-specific or cumulative impacts to the County of Ventura local roads and the County of Ventura Regional Road Network.

4

Our review is limited to the impacts this project may have on the County's Regional Road Network.

Please contact me at 654-2087 if you have questions.

F:\transpor\LanDev\Non_County\09-045-1.doc

Letter No. C5 **Letter from County of Ventura, Resource Management Agency,
December 22, 2010**

Response 1

This comment is an introduction to comments that follow. The comment provides factual background information regarding the local agencies that received a copy of the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment states that future development may require site-specific environmental documentation. Subsequently, these documents should include site-specific or cumulative impacts to the County local roads and Regional Road Network. The One Valley One Vision (OVOV) City of Santa Clarita General Plan Draft EIR is a programmatic EIR. When a project application is submitted to the City for review, traffic may be reviewed for its impact on Ventura County roads at that time. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

Please see **Response 3** above. The City acknowledges your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Jason Smisko

From: Laura Hocking [Laura.Hocking@ventura.org]
Sent: Friday, January 21, 2011 11:02 AM
To: Jason Smisko
Subject: Comments on the Draft General Plan and Program EIR for One Valley One Vision, the Joint Valleywide General Plan
Attachments: 08-032-1 City of Santa Clarita Response Cover Letter 1-24-11.pdf; 08-032-1 (Trans-BE).pdf

Mr. Smisko:

Please find attached a cover letter and comments from the County of Ventura regarding the subject document.

If you have any questions, please contact me at (805) 654-2443.

Thank you for allowing us to be part of the review process for this project. Please confirm receipt of this email.

Sincerely,

Laura Hocking
Ventura County Planning Division
800 S. Victoria Avenue, Ventura, CA 93009
laura.hocking@ventura.org
(805) 654-2443

1/27/2011

RESOURCE MANAGEMENT AGENCY

county of ventura

Planning Division

Kimberly L. Prillhart
Director

January 24, 2011

City of Santa Clarita
Attn.: Jason Smisko
23920 Valencia Blvd, Ste. 300
Santa Clarita, CA 91355-2196

E-mail: jsmisko@santa-clarita.com

Subject: Comments on the Draft General Plan and Program EIR for One Valley One
Vision, the Joint Valleywide General Plan

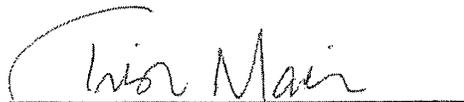
Dear Mr. Smisko:

Thank you for the opportunity to review and comment on the subject document. Attached are the comments that we have received resulting from intra-county review of the subject document. Additional comments may have been sent directly to you by other County agencies.

Your proposed responses to these comments should be sent directly to the commenter, with a copy to Laura Hocking, Ventura County Planning Division, L#1740, 800 S. Victoria Avenue, Ventura, CA 93009.

If you have any questions regarding any of the comments, please contact the appropriate respondent. Overall questions may be directed to Laura Hocking at (805) 654-2443.

Sincerely,



Tricia-Maier, Manager
Program Administration Section

Attachment

County RMA Reference Number 08-032-1

800 South Victoria Avenue, L# 1740, Ventura, CA 93009 (805) 654-2481 Fax (805) 654-2509



Printed on Recycled Paper



1



**PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
Traffic, Advance Planning & Permits Division**

MEMORANDUM

DATE: January 4, 2011

TO: RMA – Planning Division
Attention: Laura Hocking

FROM: Behnam Emami, Engineering Manager II

SUBJECT: REVIEW OF DOCUMENT 08-032-1 Notice of Availability and Notice of Completion (NOA/NOC) and Draft Program Environmental Impact Report (PEIR) for the **One Valley One Vision (OVOV)**.

A joint effort between the City of Santa Clarita (City), the County of Los Angeles (County), and Santa Clarita Valley (Valley) residents and businesses to create a single vision for future growth.

Lead Agency: **City of Santa Clarita**

Pursuant to your request, the Public Works Agency -- Transportation Department has reviewed the NOA/NOP and PEIR for the OVOV. The purpose of the "project" is to prepare planning policies and guidelines to guide future development within the Santa Clarita Valley in the County of Los Angeles. The Santa Clarita Valley extends from the City of Ventura in the County of Ventura east to the City of Santa Clarita in the County of Los Angeles.

2

We offer the following comment:

Our comments from the Memorandums dated August 14, 2008 and September 21, 2009 for our Project Numbers 08-032 and 09-045 are still valid. The comments are summarized here below. Site-specific and cumulative impacts to the County of Ventura Regional Road Network were not addressed in the PEIR. Site-specific and cumulative impacts to Ventura County roadways should be addressed in the final PEIR.

3

When future developments are proposed, the projects may have site specific and/or cumulative impacts on County of Ventura roadways. The subsequent environmental document(s) for this (these) project(s) should include any site-specific or cumulative impacts to the County of Ventura local roads and the County of Ventura Regional Road Network.

4

Our review is limited to the impacts this project may have on the County's Regional Road Network.

Please contact me at 654-2087 if you have questions.

5

F:\transport\LanDev\Non_County\08-032-1.doc

Letter No. C6 **Letter from County of Ventura, Resource Management Agency,
January 24, 2011**

Response 1

This comment is an introduction to comments that follow. The comment provides factual background information regarding the local agencies that received a copy of the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment states that future development may require site-specific environmental documentation. Subsequently, these documents should include site-specific or cumulative impacts to the County local roads and Regional Road Network. The One Valley One Vision (OVOV) City of Santa Clarita General Plan Draft EIR is a programmatic EIR. When a project application is submitted to the City for review, traffic may be reviewed for its impact on Ventura County roads at that time. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

Please see **Response 3** above. The City acknowledges your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 5

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.



COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Creating Community Through People, Parks and Programs"

Russ Guiney, Director

February 17, 2011

Sent via email: jsmisko@santa-clarita.com

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard
Suite 300
Santa Clarita, CA 91355-2196

Dear Mr. Smisko:

**NOTICE OF AVAILABILITY AND NOTICE OF COMPLETION (NOA/ NOC)
OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR)
FOR THE ONE VALLEY ONE VISION (OVOV) VALLEYWIDE GENERAL PLAN**

The Draft OVOV General Plan and its accompanying Draft EIR have been reviewed by this Department and we offer the following comments:

1

OVOV Draft EIR

pg. 3.16-12: State Parks and Recreation Areas

- Please correct Placerita Canyon State Park to "Placerita Canyon Natural Area."
- Also, the total acreage of Castaic Lake Recreation Area (8,700-acres) and Placerita Canyon Natural Area (341.1-acres) is approximately 9,041-acres, not 8,840-acres.

2

pg. 3.16-12: Placerita Canyon Open Space

- Please correct the Placerita Canyon Open Space to "Placerita Canyon Natural Area."

3

NOTE: The comments below pertain to trails.

pg. 3.16-13: Angeles National Forest

- Please correct the following paragraph:
A small portion of the City's Planning Area (approximately 100 acres) is located within the Angeles National Forest. The Angeles National Forest covers 693,000 acres of land area in the San Gabriel Mountains, which constitutes approximately one-quarter of the land located within Los Angeles County (County). The United States Forest Service administers the National Forest, which is an agency of the United States Department of Agriculture. The Angeles National Forest is divided into three areas and supervised in districts, one of which is the Santa Clara/Mojave Rivers Ranger District within the OVOV boundary. The Angeles National Forest offers a wide range of camping (with fees) and picnicking facilities. The Angeles National Forest also provides non-fee Off-Highway Vehicle (OHV) areas such as Rowher Flats and Drinkwater, Drinkwater Staging Area, Indian Canyon Staging Area (Staging for both motorized and non-motorized trail users), and a multitude of OHV designated roads connecting Rowher Flats to

4

Planning and Development Agency • 510 South Vermont Ave • Los Angeles, CA 90020-1975 • (213) 351-5198

Drinkwater, with continued connectivity further north, all of which are located within the OVOV Planning Area. In addition, there are hundreds of miles of non-motorized multi-use (equestrian, hiking, and mountain biking) trails in the forest, some of which are not located within the City, but would which could potentially connect to trails within the City, and also connect to the proposed County regional trail system (see discussion on trails below p.3.16-12). There are four reservoirs in the Angeles National Forest including the State owned, County operated Castaic Lake (includes upper and lower lakes), and State owned/operated Pyramid Lakes (5 miles northeast and 18 miles north of the site respectively) each providing water skiing, fishing, sail boarding, jet skiing, and swimming activities (Note: Motorized water activities are not permitted on Castaic Lower Lake). The operators of the water reservoirs charge entrance fees, as well as provide boat launching, boat rental, and overnight camping fee. In addition, to the identified recreational opportunities, the Angeles National Forest provides a home for an array of wildlife. The Angeles National Forest also contains a portion of the Federal dual-use (equestrian and hiking) Pacific Crest Trail (PCT).

4

pg. 3.16-14: Regional Trails

• Please modify the last sentence of the first paragraph as follows:
The Rim of the Valley encompasses the Santa Clara River Valley, and the Angeles National Forest, in addition to the communities of San Fernando, La Crescenta, Simi Valleys,

5

pg. 3.16-14: State, Federal, County, and City Trails

• Please modify the following sentence as follows:
Two of the larger trails alignments in the system are described below, followed by a listing of other State, Federal, County, and City trails alignments either existing or proposed within the OVOV boundary.

6

pg. 3.16-15: Santa Clara River Trail

• Please correct the following paragraph as follows:
The Santa Clara River has been primarily preserved as a Significant Ecological Area (SEA) and as open space to provide flood protection. The State of California recently adopted the Santa Clara River as a State Recreation Trail Corridor. Its preservation has allowed for the development of a 14-mile-long City of Santa Clarita multi dual-use (equestrian, and pedestrian) trail following the rivers banks from Valencia to Canyon Country, which is the backbone to the Valley's larger County regional trail system. The County has adopted the estimated 7-mile long multi-use (equestrian, bicycle, and hiking) segment of the Santa Clara River Trail alignment within the OVOV Planning Area from Interstate 5 due west to the Los Angeles County/Ventura County border.

7

pg. 3.16-15: Other State, Federal, County, and City Trails within OVOV Boundary

• Please modify the following list as follows:
*Note: Trail mileage are estimates with (P)=Proposed trail, (E)=Existing trail, and trail jurisdiction as either State, Federal, County, or City.

8

- | | |
|------------------------------|-------------------------------|
| • William S. Hart Park Trail | 2.8 miles (E- County) |
| • Gavin Canyon Trail | 8.0 miles (P-County) |
| • Pico Canyon Trail | 9.0 miles (P & E-County/City) |
| • Sand Canyon Trail | 4.0 miles (P & E-County) |

- Castaic Creek Trail 5.0 miles (P-State/County)
- Castaic Lake Trail 2.0 miles (P & E-State/County)
- Bouquet Canyon Trail 7.0 miles (P-County)
- Placerita Creek Trail 3.0 miles (E-State/County)
- Acton Community Trail 22.0 miles (P-County)
- Northside Connector Trail 6.5 miles (P-County)
- Vasquez Loop Trail 17.3 miles (P-County)
- Hasley Canyon Trail 3.4 miles (P & E-County)
- Mint Canyon Trail 3.7 miles (P & E-County)
- Los Pinetos Trail 3.3 miles (E-State/Federal/County)
- Placerita Canyon Connector Trail 2.8 miles (P-County)

8

OVOV Draft General Plan

p. CO-46: William S. Hart Regional Park and Museum

- Please modify the last sentence of the paragraph as follows:
The William S. Hart Residence, Bunk House, Garage and Chauffeur's Quarters, Pool House, Gate Tower, Sun Deck and Tea Room, Barns, and Pet Cemeteries are all eligible as contributors to a district for listing in the National Register of Historic Places. The property is currently listed as a State Point of Historical Interest #564.

9

p. CO-50: Harry Carey Ranch Historic District

- Please correct the following sentence as follows:
In 2005, the County accepted the donation from the ~~Historic District from the property owner~~ as part of the approval process for an adjacent housing development.

10

Please include the following sentence in the end of the paragraph:

Harry Carey Ranch Historic District, currently known as Tesoro Adobe Historic Park is not officially listed on the National Register of Historic Places. The property has been determined eligible as a Historic District for the National Register of Historic Places.

11

p. CO-51: Vasquez Rocks Natural Area Park

- Please correct the following as follows:
National Register of Historic Places (Site Item #72000228).
NOTE: The comments below pertain to trails.

12

p. CO -76

- Please modify the third and fourth paragraphs as follows:
The City funds trail construction on a project-by-project basis by combining general fund money with grant applications. Since 1995 the City has received \$12-\$13 million in grants used for trail construction, including both State and Federal funds. For example, an MTA grant was used to fund design and construction of the continuation of the Santa Clara River Trail from the South Fork to Interstate 5. The County is responsible for the remaining segment of the Santa Clara River Trail with an estimated trail length of seven miles from Interstate 5 to the Los Angeles County/ Ventura County border. The City and County also require developers to dedicate trail easements, and construct trail segments within the project boundaries of new development, based on adopted trail plans, ~~and~~ to provide connections to regional trails ~~where required~~.

13

Mr. Jason Smisko,
February 17, 2011
Page 4

City staff ~~attempts to~~ coordinates with County and Federal agencies and developers on projects outside City limits, including U.S. Forest Service lands to ensure that the City's trail systems connect with County regional trails.

13

p. CO-98: Policy CO 9.2.1

- Please modify the following sentence as follows:

Plan for a continuous and unified multi-use (equestrian, bicycling, and pedestrian/hiking) trail network for a variety of users, to be developed with common standards, in order to unify Santa Clarita Valley communities and connect with County Regional, State, and Federal trails, such as the dual-use (equestrian, and hiking) Pacific Crest Trail.

14

Thank you for including this Department in the environmental review process. If you have any questions pertaining to trails, please contact Mr. Robert Ettleman at (213) 351- 5134 or rettleman@parks.lacounty.gov. For any other questions or inquiries, please contact Ms. Julie Yom at (213) 351-5127 or jyom@parks.lacounty.gov.

15

Sincerely,



Joan A. Rupert
Section Head
Environmental & Regulatory Permitting Section

JR:JY:tls/response to Santa Clarita OVOV DEIR and Draft General Plan

c: Parks and Recreation (N. E. Garcia, L. Hensley, F. Moreno, R. Ettleman, J. Yom, A. Davies)

Letter No. C7 **Letter from County of Los Angeles Department of Parks and Recreation,
February 17, 2011**

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The requested correction concerning the heading of State Parks and Recreation Areas to Section 3.16, Parks and Recreation, page 3.16-12 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 3

The requested correction concerning the heading of Placerita Canyon Open Space to Section 3.16, Parks and Recreation, page 3.16-12 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 4

The requested correction concerning the Angeles National Forest in Section 3.16, Parks and Recreation, page 3.16-13 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 5

The requested correction concerning Regional Trails in Section 3.16, Parks and Recreation, page 3.16-14 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 6

The requested trails correction to Section 3.16, Parks and Recreation, page 3.16-14 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 7

The requested correction regarding the Santa Clara River Trail in Section 3.16, Parks and Recreation, page 3.16-15 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 8

The requested correction to Section 3.16, Parks and Recreation, pages 3.16-15 and 3.16-16 of the Draft EIR has been made. Please see the portion of the One Valley One Vision City of Santa Clarita General Plan Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

Response 9

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the addition of new text to the OVOV Draft General Plan Conservation and Open Space Element. The Los Angeles County Department of Parks and Recreation (LA County Parks) state that the buildings of the William S. Hart Regional Park and Museum are eligible as contributors to a Historic District. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 10

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the deletion of text in the OVOV Draft General Plan Conservation and Open Space Element. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 11

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the addition of new text to the OVOV Draft General Plan Conservation and Open Space Element. The LA County Parks has made a comment that the Harry Carey Ranch Historic District has been determined eligible as a Historic District for the National Register of Historic Places. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 12

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the modification of Vasquez Rocks Natural Area Park Item number in the OVOV Draft General Plan Conservation and Open Space Element. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 13

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the modification of trails information in the OVOV Draft General Plan Conservation and Open Space Element. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 14

The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. These comments relate to the modification of trails discussion in the OVOV Draft General Plan Conservation and Open Space Element. The comments do not pertain to the adequacy or completeness of the EIR or raise any specific issue regarding the environmental analysis presented in the Draft EIR. Therefore, no further response can be provided or is required. The requested correction was included in the errata to the OVOV document.

Response 15

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

HERITAGE HILLS RANCH, LLC
2 North Lake Avenue, Suite 820
Pasadena, California 91101
(626)577-1130 FAX (626)577-5450

September 8, 2010

RECEIVED

SEP 13 2010

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

Mr. Paul Brotzman
Planning & Community Development Director
City of Santa Clarita
23920 Valencia Boulevard
Santa Clarita, California 91355

Re: **One Valley One Vision
General Plan Amendment**

Dear Paul:

It has just recently been brought to our attention that the City of Santa Clarita is proposing a General Plan and Zoning change in its General Plan Update process that affects property we own.

The property Heritage Hills Ranch, LLC owns is more clearly shown on the attachment marked Existing Zoning and is presently designated as RL (MOCA), a lower density residential use.

The City, as we understand, is proposing to change our property to URI, a low density residential and BP, an industrial zoning, respectively. It is unclear to us at the moment whether and to what extent oil production can continue on our property under this proposed zoning. The City recommendation is shown more clearly on the attachment marked OVOV Proposed Zoning.

1

Heritage Hills Ranch, LLC has been in the process for the last several years of designing a residential use compatible with the surrounding residential uses and we feel that an Industrial BP designation would not be complimentary to our development.

The industrial designation would invite noise, traffic and uses that would impact a dead-end street to the public (Placerita Canyon Road) and the rural nature of the area, which we have been told by many is the overwhelming desire of the community.

If you would like to discuss our letter in greater detail, please do not hesitate to contact us.

We also would like to be kept informed by your staff of the progress of the public meetings concerning the General Plan update and whether the City will be eliminating the Industrial BP designation from our property or keeping it.

30

Mr. Paul Brotzman
September 8, 2010
page 2

Thank you, Paul, for your consideration.

Sincerely,

HERITAGE HILLS RANCH, LLC,
a California limited liability company

By: PacificUS Real Estate Group,
its sole Member



John W. Jameson
Executive Vice President

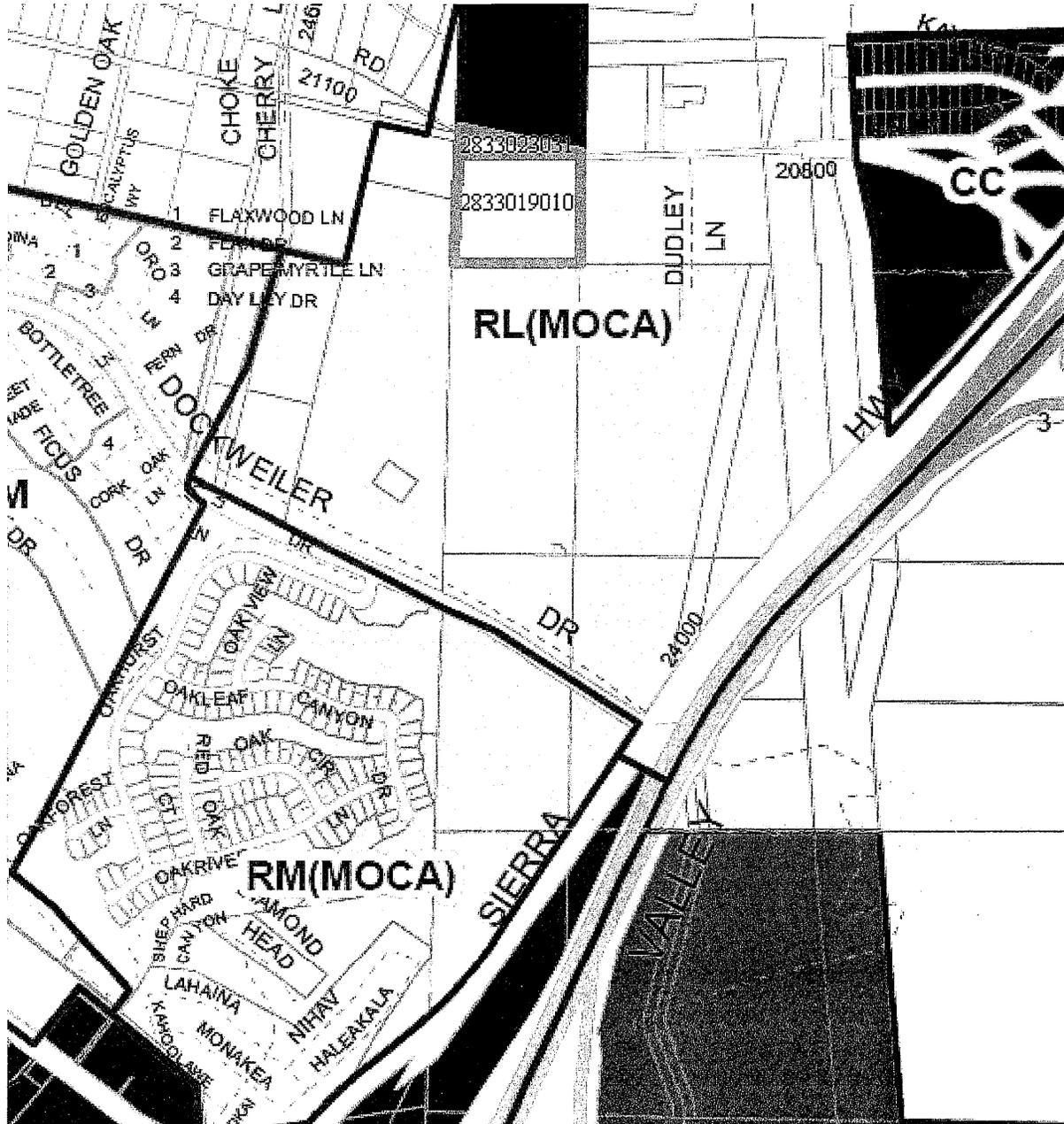
JWJ:js

cc: Paul J. Giuntini

31

Existing Zoning Residential Low

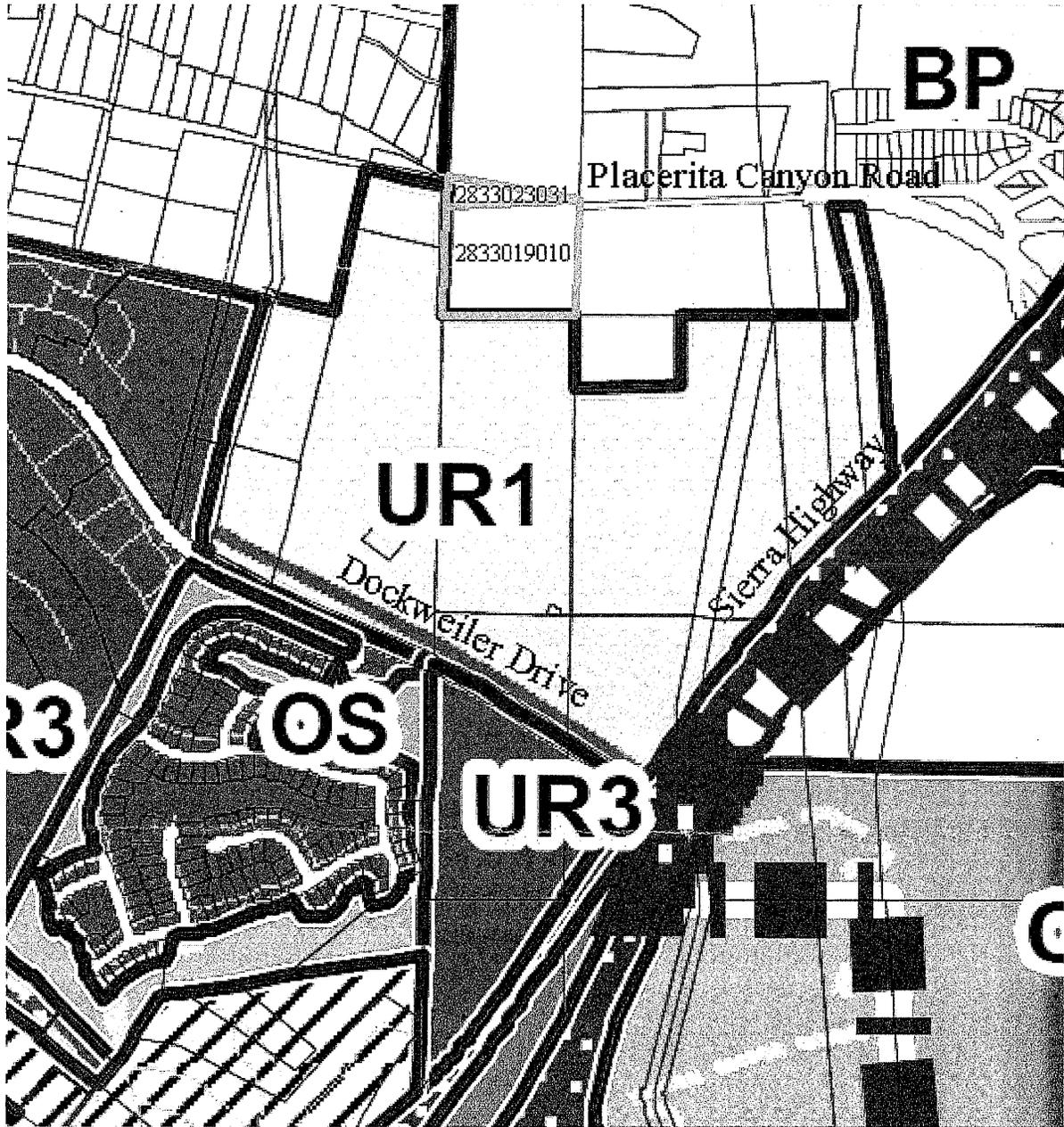
APNs: 283302303, 2833019010 (In Green Border)



32

OVOV Proposed Zoning Industrial BP

APNs: 283302303, 2833019010 (In Green Border)



33

Letter No. D1 Letter from Heritage Hills Ranch, September 8, 2010

Response 1

The commenter voiced concern regarding a proposed General Plan and Zone change over a property owned by Heritage Hills Ranch, LLC. The comment raises General Plan issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Dear Mr. Smisko:

The Draft EIR for OVOV is not yet available, but comments, if they are to be presented to the Planning Commission at the October 5, 2010 meeting are due September 22.

These are my preliminary concerns:

- 1. Placerita Canyon's Special Standards District must be honored in its entirety.
- 2. All aspects of the Circulation element are to comply with the Global Warming Solutions Act of 2006 (AB32) to reduce emission levels to 1990 levels by 2020 and to 80% of 1990 levels by 2050.
- 3. DS12 shall remain in place on the Whittaker Bermite property. The property shall be deemed cleaned to residential use levels before any grading commences.
- 4. All earthquake faults shall be completely and accurately represented in the EIR, including the Pico Canyon fault, and the faults on the Whittaker Bermite property and the proposed hotel site at McBean and Valencia Boulevards.

<http://elsmerecanyon.com/picocanyon/quake/quake.htm>

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Please be assured more questions will follow once I have seen the Draft EIR.

Thank you,

Valerie Thomas

RECEIVED
SEP 20 2010
 COMMUNITY DEVELOPMENT
 CITY OF SANTA CLARITA

20

Letter No. D2

Letter from Valerie Thomas, September 20, 2010

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The commenter stated that Placerita Canyon's Special Standards District must be honored in its entirety. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter states that the Circulation Element are to comply with the AB 32 to reduce emissions to 1990 levels by 2020 and to 80 percent of 1990 levels by 2050. Analysis of AB 32 is conducted in Draft EIR Sections 3.3 Air Quality and 3.4 Global Climate Change. The Land Use Plan and Circulation Plan together form the backbone of future land use decisions that are intended to support alternative modes of transportation, building methods and job creation, which in turn will reduce air quality emissions.

Response 4

The commenter states that DS12 should remain in place on the Whitaker Bermite property and that the property shall be deemed cleaned to residential use levels prior to commencement of grading activities. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter states that all earthquake faults should be represented correctly in the EIR, including the Pico Canyon fault, faults on Whitaker Bermite and the hotel site at McBean and Valencia Boulevards. Please see Draft EIR, Section 3.9 Geology/Soils/Seismicity, Figure 3.9-3 Faults within or Adjacent to the OVOV Planning Area.

Response 6

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: Jason Smisko
Sent: Tuesday, September 21, 2010 11:38 AM
To: 'BWERNER@QUALCORP.COM'
Subject: One Valley One Vision

Hi Mr. Werner,

Would you please give me a call at your convenience regarding the status of One valley One Vision, 661-255-4306. I would like to provide you with an update and offer to meet with you about the project if you are interested.

1

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306
jsmisko@santa-clarita.com

27

9/28/2010

Letter No. D3

Letter from Bwerner@qualcorp.com

Response 1

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR. It should be noted that the City's OVOV Project Manager subsequently contacted the commenter.

Jason Smisko

To: tattnlaw@gmail.com
Cc: Maggi Sanchez
Subject: OVOV - City of Santa Clarita - Consultation Meeting

Dear Mr. Rosas,

Thank you for your voicemail received on Friday, September 24. I look forward to meeting with you as you have accepted our offer of consultation. The Planning Division Secretary, Maggi Sanchez, will contact you shortly to schedule a meeting to discuss the OVOV project.

The 90-day comment period on the OVOV Program DEIR has begun and it concludes on December 22, 2010. A public hearing before the Planning Commission has been calendared for October 5, 2010. On this date, staff will recommend that the Planning Commission receive the staff presentation, open the public hearing, take public testimony and continue this item to November 17, 2010. It is expected that OVOV public hearings with the Santa Clarita City Council will begin in spring 2011.

Previously, copies of the NOA, NOC, the DEIR Executive Summary, and discs of the OVOV General Plan and its DEIR have been sent to you either via email or U.S. Mail or both.

Please feel free to contact me if you would like to discuss this project further in advance of our anticipated meeting.

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306
jsmisko@santa-clarita.com

From: Johntommy Rosas [mailto:tattnlaw@gmail.com]
Sent: Wednesday, September 22, 2010 6:26 PM
To: PLANNING
Cc: Dave Singleton; Robert Garcia; Leslie Purcell
Subject: Re: OVOV - Draft Program EIR 90-Day Public Review

seems like we should have done some consultations before the doc goes out
and so if you didnt as a sb 18 or nepa / ceqa matter follow the laws
we object to thisdenial of our rights
/s/ johntommy rosas

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On Wed, Sep 22, 2010 at 5:02 PM, PLANNING <PLANNING@santa-clarita.com> wrote:

Dear Community Member,

9/29/2010

18

Attached are the Notice of Availability and Notice of Completion for One Valley One Vision (OVOV), the Joint Valleywide General Plan. The draft OVOV General Plan and draft OVOV program environmental impact report are now available online on the City's website at www.santa-clarita.com/ovov. The expanded 90-day public review period for this project has begun and it concludes on December 22, 2010. Hard copies of these documents are available at City Hall and local libraries.

You are receiving this because your email was noted in earlier correspondence, on a sign-in list from a OVOV community member, or otherwise deemed interested in information on this project. You may also receive this notice in hard copy form via United States Postal Service. If you would like your name removed from any of our OVOV contact lists, please respond to this address.

Sincerely,

Planning Division
City of Santa Clarita
Suite# 302
23920 Valencia Blvd.
Santa Clarita, CA 91355

Phone: (661) 255-4330
Fax: (661) 286-4007
Email: planning@santa-clarita.com
Web: <http://www.santa-clarita.com>



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JOHN TOMMY ROSAS
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19

9/29/2010

Letter No. D4

Letter from John Tommy Rosas, September 22, 2010

Response 1

The commenter states that consultation should have occurred prior to the document being released. The City distributed early consultation letters on June 18, 2008 to representatives of the following Native American tribes: Fernandño Tataviam Band of Mission Indians, the Tribal Historical Cultural Committee, and the San Fernando Band of Mission Indians. Each of these three tribes is included on the NAHC list. During the EIR review period, staff made telephone calls to seven Native American Contacts previously provided during the NOP period and offered to meet for consultation. In addition, a complete Draft EIR was transmitted to the seven contacts. To this date, none of the tribes has submitted comment on the Draft EIR.

The comment does not raise any specific issue regarding the analysis presented in the Draft EIR and, therefore, no more detailed response can be provided or is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 2

The commenter stated that an SB 18 consultation or as a NEPA/CEQA matter should have followed the laws. The laws were followed as to notification of Native American tribal representatives. Please see **Response 1**, above. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter stated that they object to the denial of their rights. The City does not believe that any rights were violated throughout the OVOV EIR process. Please see **Response 1**, above. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Jason Smisko
Sent: Friday, September 24, 2010 11:50 AM
To: TimBen Boydston
Subject: RE: OVOV

Dear Mr. Boydston,

Thank you for your communication. I have a few responses which I hope you find helpful.

- You are welcome to pick up the two OVOV discs today. One disc is the entire Draft OVOV General Plan and another is the entire Draft EIR for OVOV--including all appendices. I also believe these discs were mailed to you this week to the mailing address you recently provided me. Further, all of the documents on both of the discs are currently available on the City's website at http://www.santa-clarita.com/ovov/.

- Any comments made in any forum during the 90-day comment period including but not limited to any comments written or made during Planning Commission public hearings on OVOV will be considered. Written comments made during the 90-day comment period will be made part of the Final EIR and will be included in the Response to Comments section.

- To clarify, the language in the September 5 published public hearing notice regarding challenges is statutory language that the Public Resources Code requires us to put in our notices for public hearings on EIRs. It will be City staff's recommendation at the October 5 meeting that the hearing on this matter be continued open to a meeting in November and that additional comments be taken at that time. Until that happens, the only date currently set for a public hearing is October 5. You will be able to find a copy of the staff report for the October 5 meeting, including staff's recommendation, online at the City's website on October 1, 2010, at 5:00 p.m.

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306

From: TimBen Boydston [timbenin10@gmail.com]
Sent: Thursday, September 23, 2010 8:13 PM
To: Jason Smisko
Subject: OVOV

Mr. Smisko,

I look forward to picking up a copy of the OVOV on September 24th, 2010 on disc. Will it be complete with all appendices, maps, charts and graphs? If there is anything not included which is being used as a source please let me know, and let me know what I need to do to obtain copies of additional sources.

1

I must lodge a formal complaint that the public has not been given an opportunity to read the OVOV documents before the deadline for written comments has passed to have those comments included in the Planning Commissioner's packets for their first meeting. That deadline was the 22nd of September, and the Documents were not available until the 23rd.

2

To have only 12 days to read over 2,000 pages of documents and make cogent comments at the public hearing that will be considered for purpose of legal challenge is absurd. You indicated in our conversation of Monday September 20th that there will be 90 days for comments. Will comments during those 90 days be considered with the same legal weight as the comments entered at the October 5th meeting.

3

I, and members of the Santa Clarita Neighborhood Coalition await your reply.

4

20

Yours,

TimBen Boydston
Former Councilman

21

2

Letter No. D5

Letter from TimBen Boydston, september 23, 2010

Response 1

The comment raised issues regarding copies of the OVOV document and supporting documentation that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter stated that he was raising a complaint that he did not have an opportunity to review the Draft EIR prior to the Planning Commission's first public hearing. As noted in an email communication to the commenter on September 24, 2010, any comments made in any forum during the 90-day comment period including but not limited to any comments written or made during the Planning Commission public hearings on OVOV will be considered. Written comments made during the 90-day comment period will be made part of the Final EIR and will be included in the **Response to Comments** section. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter stated that he had only 12 days to read over 2,000 pages of text is unreasonable. The commenter had spoken to City representatives who indicated that there would be a 90-day public comment period and would those comments carry the same legal weight as those made before the Planning Commission hearing. As noted in an email communication to the commenter on September 24, 2010, the language in the September 5, 2010, published public hearing notice regarding challenges is statutory language that the Public Resources Code requires the City to place in public notices for EIRs. It was City staff's recommendation at the October 5 meeting that the hearing on this matter be continued to a meeting in November and that additional comments be taken at that time. It should be noted that the comment period was ultimately extended an additional 60 days for a total of 150 days and a total of five public hearings were held by the Planning Commission with additional hearing(s) to occur with the City Council. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: Jason Smisko
Sent: Wednesday, September 22, 2010 5:12 PM
To: 'tsurak @dslextreme.com'
Cc: letters@the-signal.com; Ken Pulskamp; Gail Ortiz; Lisa Webber; Fred Follstad; Paul Brotzman
Subject: RE: Notice of Public Hearing For One Valley One Vision General Plan

Dear Mr. Surak,

Thank you for your communication. To clarify, the language in the September 5 published public hearing notice regarding challenges is statutory language that the Public Resources Code requires us to put in our notices for public hearings on EIRs. It will be City staff's recommendation at the October 5 meeting that the hearing on this matter be continued open to a meeting in November and that additional comments be taken at that time. Until that happens, the only date currently set for a public hearing is October 5, so the notice is in compliance with the law. You will be able to find a copy of the staff report for the October 5 meeting, including staff's recommendation, online at the City's website on October 1, 2010, at 5:00 p.m.

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306
jsmisko@santa-clarita.com

From: tsurak @dslextreme.com [mailto:tsurak@dslextreme.com]
Sent: Wednesday, September 22, 2010 12:43 PM
To: Jason Smisko; Ken Pulskamp
Cc: letters@the-signal.com
Subject: Notice of Public Hearing For One Valley One Vision General Plan

Dear Messrs. Smisko and Pulskamp:

I am confused by the subject notice which was transmitted on Sept. 5. It states, "If you wish to challenge the action taken on this matter in court, you may be limited to raising only those issues that you or someone else raised at the public hearing described in this notice, or written correspondence delivered to the City of Santa Clarita at, or prior to, the public hearing." (emphasis added) Please note that the notice refers to not only a public hearing scheduled for October 5, but also states "Additional public hearings are anticipated to be held on this matter before the Planning Commission this November and December." (emphasis added) My understanding is that there may be as many as five of these additional public hearings.

1

This begs the question as to whether issues subject to legal challenge must be raised by October 5, or by the last of the "additional public hearings"? I maintain that your notice is clearly ambiguous with respect to this important matter, and therefore request that the notice needs to be re-issued in a timely manner to all interested parties with proper clarification as to what time frame governs legal challenges. Please reply with your response at your earliest convenience.

Thomas Surak
Newhall

9/28/2010

26

Letter No. D6

Letter from Thomas Surak, September 22, 2011

Response 1

The commenter noted his confusion with regard to the public notice distributed regarding the Draft EIR and subsequent public hearings. Any comments made in any forum during the 90-day comment period including but not limited to any comments written or made during the Planning Commission public hearings on OVOV will be considered. Written comments made during the 90-day comment period will be made part of the Final EIR and will be included in the **Response to Comments** section. As noted in an email communication to the commenter on September 22, 2010, the language in the September 5, 2010, published public hearing notice regarding challenges is statutory language that the Public Resources Code requires the City to place in public notices for EIRs. It was City staff's recommendation at the October 5 meeting that the hearing on this matter be continued to a meeting in November and that additional comments be taken at that time. It should be noted that the comment period was ultimately extended an additional 60 days for a total of 150 days and a total of five public hearings were held by the Planning Commission with additional hearing(s) to occur with the City Council. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

OVOV Area Plan Update: IEC meeting 9-23-10 @ 2 p.m.

Marshall Adams/ Mitch Glaser Regional Planning:

My husband and I are in approval that the IEC redesignate Vasquez Canyon Rd as a LIMITED Secondary Highway. One of the reasons we approve this designation is that IEC papers show that there is a future major highway proposed called 'Santa Clarita Parkway'.

However, one of our concerns regarding Vasquez Cyn. Rd. is the increased traffic we see which backs up in the evenings from Sierra Hwy. directly in front of our driveway, making it difficult to enter our driveway taking our lives in our hands when northbound traffic is already traveling about 60 MPH from Sierra Hwy. There needs to be a lower speed limit on Vasquez. If the County Roads Department were contacted they would be able to tell you how many times they have to repatch areas of Vasquez where the 18 wheelers have bounced along the roadway gouging out chunks of asphalt, leaving large holes daily which cause damage to vehicles with flying asphalt.

Regional Planning has approved a 24 home development directly across the street from us with a small bridge necessary to access the property...meaning a short left turn lane off Vasquez for ingress and egress...all with short tempered drivers waiting, or driving into the dirt along the roadway, sometimes losing control and spinning out in the dirt.

After reading each page of Highway Designations we see that Sierra Hwy. will become the next major highway designation and unless another freeway is built we are very concerned that, with the population of the Santa Clarita Valley topping 250,000 and with the growing communities of Palmdale and Lancaster, will not be able to handle the traffic between this area, Los Angeles and those communities.

Right now, it is criminal if your IEC meetings are not held up here in the Santa Clarita Valley so that more citizens can attend and give their input into what the County can or cannot do with the streets and highways affecting us! Also, the City of St. Clarita did not even know about this meeting on the 23rd at 2 p.m.

Barbara & Robert Waycott
16301 Vasquez Cyn. Rd.
Canyon Country, CA 91351
(661) 252-2276

cc: Michael Antonovich, Supv., St. Cl., Richard (fax) 254-4453
City of St. Clarita Jason Smisko - Planning (fax) 286-4007

1

29

Sunday, September 19, 2010 AOL: BB Waycott

Letter No. D7

Letter from Barbara & Robert Waycott, September 19, 2010

Response 1

The commenter supports the proposed redesignation of Vasquez Canyon as a Limited Secondary Highway. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Jason Smisko
Sent: Thursday, September 23, 2010 9:22 AM
To: 'bwcurtis@pacbell.net'
Subject: Volume 3.0

Thank you, Mr. Curtis. I apologize. This has been corrected.

Regards,

Jason Smisko

From: Ben [mailto:bwcurtis@pacbell.net]
Sent: Wednesday, September 22, 2010 8:10 PM
To: PLANNING
Subject: RE: OVOV - Draft Program EIR 90-Day Public Review

Sirs;

FYI ... The link for section 3.0 of Volume I of the OVOV Draft Program EIR is faulty.

page: http://www.santa-clarita.com/ovov/draft_eir.asp

Ben Curtis

[] [1]

9/28/2010

24

Letter No. D8

Letter from Ben Curtis, September 23, 2010

Response 1

The commenter stated that the link on the City's website for Section 3.0 for Volume 1 of the OVOV Draft Program EIR was faulty. The City fixed the link on its website. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Jason Smisko
Sent: Thursday, September 23, 2010 11:54 AM
To: 'Valerie Thomas'
Subject: OVOV Map Pricing

Dear Mrs. Thomas,

In response to your inquiry to Paul Brotzman, for a full-size "poster-size" of the draft OVOV land use map, the cost is \$60.00. Most of the other maps/exhibits in OVOV and the DEIR at that size will be \$50.00.

1

You may also consider taking the disk to a printer (or direct the printer to a web link of a desired exhibit) and having them price it for you based on size and color needed.

Regards,

*Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306
jsmisko@santa-clarita.com*

23

9/28/2010

Letter No. D9

Letter from Valerie Thomas, September 23, 2010

Response 1

The commenter requested information concerning the cost of reproducing full-size OVOV Land Use maps. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

To: PLANNING
Subject: RE: OVOV - Draft Program EIR 90-Day Public Review

From: Todd & Minerva Hoover [mailto:crazycatherder@ca.rr.com]
Sent: Thursday, September 23, 2010 7:38 AM
To: PLANNING
Subject: RE: OVOV - Draft Program EIR 90-Day Public Review

Thank you very much for sending!

Yes, we are highly interested in this OVOV General Plan . . .

1

Minerva L. Williams and Todd L. Hoover

From: PLANNING [mailto:PLANNING@santa-clarita.com]
Sent: Wednesday, September 22, 2010 5:03 PM
To: PLANNING
Subject: OVOV - Draft Program EIR 90-Day Public Review

Dear Community Member,

Attached are the Notice of Availability and Notice of Completion for One Valley One Vision (OVOV), the Joint Valleywide General Plan. The draft OVOV General Plan and draft OVOV program environmental impact report are now available online on the City's website at www.santa-clarita.com/ovov. The expanded 90-day public review period for this project has begun and it concludes on December 22, 2010. Hard copies of these documents are available at City Hall and local libraries.

You are receiving this because your email was noted in earlier correspondence, on a sign-in list from a OVOV community member, or otherwise deemed interested in information on this project. You may also receive this notice in hard copy form via United States Postal Service. If you would like your name removed from any of our OVOV contact lists, please respond to this address.

Sincerely,

Planning Division
City of Santa Clarita
Suite# 302
23920 Valencia Blvd.
Santa Clarita, CA 91355

Phone: (661) 255-4330
Fax: (661) 286-4007
Email: planning@santa-clarita.com
Web: <http://www.santa-clarita.com>

25

9/28/2010

Letter No. D10

Letter from Todd & Minerva Hoover, September 23, 2010

Response 1

The requested information concerning the OVOV project. In communication to the commenters, a Notice of Availability and Notice of Completion for One Valley One Vision. Communication noted that the OVOV General Plan and Draft Program EIR were available on the City's website at www.santaclarita.com/ovov. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: bionic1@sbcglobal.net
Sent: Friday, September 24, 2010 8:49 AM
To: Jason Smisko
Subject: Re: Draft EIR/Appendices

Great! I'll pick it up between 10 and 11. Val

Sent via BlackBerry by AT&T

From: Jason Smisko <JSMISKO@santa-clarita.com>
Date: Fri, 24 Sep 2010 08:31:25 -0700
To: 'bionic1@sbcglobal.net' <bionic1@sbcglobal.net>
Subject: Re: Draft EIR/Appendices

The City will gladly provide you one at no cost.

From: Valerie Thomas <bionic1@sbcglobal.net>
To: Jason Smisko
Sent: Fri Sep 24 08:27:54 2010
Subject: RE: Draft EIR/Appendices

Cost for the disk?

From: Jason Smisko [mailto:JSMISKO@santa-clarita.com]
Sent: Friday, September 24, 2010 8:23 AM
To: 'bionic1@sbcglobal.net'
Subject: Re: Draft EIR/Appendices

Hi Mrs. Thomas,

The appendices are available on the City's website, www.santa-clarita.com/ovov and they are on the DEIR disk available at the Planning Counter. Appendices are included with hard copies of the DEIR at City Hall and the Valencia and Newhall Libraries.

Regards,

Jason Smisko

From: Valerie Thomas <bionic1@sbcglobal.net>
To: Jason Smisko
Sent: Fri Sep 24 08:12:28 2010
Subject: Draft EIR/Appendices

When will these be available?
Val

1

9/28/2010

22

Letter No. D11 Letter from Valerie Thomas, September 24, 2010

Response 1

The commenter requested the availability of the Draft EIR and Appendices. The City responded to the commenter by providing a CD disk on September 24, 2010. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

MONTEZUMA LAND DEVELOPMENT, INC.

September 29, 2010

RECEIVED
PLANNING DIVISION

OCT 04 2010

Mr. Paul Brotzman, Director
Planning and Community Development
City of Santa Clarita
23920 Valencia Blvd., Suite 300
Santa Clarita, CA 91355-2196

CITY OF SANTA CLARITA

Re: One Valley One Vision/General Plan Update

Dear Mr. Brotzman:

We understand that property that is owned by Montezuma Land Development (VTM 48893) has presently been designated as URI (02 du/ac) ½ acre lots in the City's One Valley One Vision plan.

The purpose of this letter is to request in lieu of the above a designation on your land use policy map of Urban Residential, UR2 (0-5 du/ac) 5,000 sq. ft. lots.

You are well aware of the considerable time and expense Montezuma has invested in this project over the last few years to resolve serious questions concerning our revised land plan, access, and geology. We have met with the adjacent neighborhoods and obtained their support and have met with the Canyon Country Advisory Committee and obtained their favorable recommendation for approval.

We have met with you and your staff on previous occasion to discuss our current development plan and its compatibility with the adjacent neighborhoods and at your urging the possibility of changing the OVOV designation from UR1 to UR2. If the City can accommodate our request this makes our current development plan and development application much more consistent with the updated land use policy map.

Thank you, Mr. Brotzman, for your consideration of our request.

Sincerely,



Rae L. Price, President
Montezuma Land Development, Inc.

1

28th Street Marina, 2600 Newport Blvd., Suite 130, Newport Beach, CA 92663
(949) 675-2445 Phone • (949) 675-9992 Fax
E-mail: mld48893@hotmail.com

Letter No. D12

Letter from Montezuma Land Development, Inc., September 29, 2010

Response 1

The commenter requested a designation of subject property from URI (02 du/ac) 0.5 acre lots to UR2 (0-5 du/ac) 5,000 square foot lots. The comment raises rezoning issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: OVOV [OVOV@santa-clarita.com]
Sent: Monday, October 04, 2010 2:26 PM
To: Jason Smisko
Subject: FW: One Valley One Vision

From: gmarndt@aol.com[SMTP:GMARNDT@AOL.COM]
Sent: Monday, October 04, 2010 2:25:37 PM
To: OVOV
Subject: One Valley One Vision
Auto forwarded by a Rule

500,000 people huh? Gee, you are always warning the citizens that there is no water. Do you plan on making your own or do you have a direct line to God for rain on request? A good reason for all of us citizens to use as much water as possible so you cant overbuild and create a drought catastrophe in the future.

1

11/6/2010

Letter No. D13

Letter from Gmarndt@aol.com, October 4, 2010

Response 1

The commenter voiced comments regarding the proposed number of people and the availability of water and maybe citizens should use as much water as possible so that no overbuilding could occur and to create a drought catastrophe. Please see OVOV Draft EIR Section 3.13 which concludes that there is enough water to support the City of Santa Clarita OVOV Plan, Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: tlemery@jps.net
Sent: Tuesday, October 05, 2010 10:34 AM
To: Jason Smisko
Subject: OVOV-Important opinion

Dear Mr. Smisko,

I am aware of the OVOV plan for Santa Clarita. I have been a resident of this valley for over 22 years. I moved my young family here because of the openness, beauty and high achieving schools. We have enjoyed living here all these years, even through the massive growth throughout those years. Hereing about the plans for an additional growth of up to 500,000 in our valley is alarming. It will ruin this beautiful valley as we know it. Please do NOT allow this happen. Keep it simple and protect our environment and way of living as we know it out here. Please know that I am speaking for all of my neighbors and acquaintances who live in this wonderful valley... We all want to see it thrive, but not in the way that the OVOV plan projects.

Thank you for your attention to this matter. I hope you will consider the desires of the residents of Santa Clarita. Money and growth do not equal the quality of living as we know it today.

**Concerned Resident,
Thomas and Luanne Emery
Canyon Country**

1

Letter No. D14

Letter from Thomas and Luanne Emery, October 5, 2010

Response 1

The commenters are concerned with the proposed growth associated with the OVOV Plan. They believe that the Plan will ruin the Valley and quality of life. The comment only expresses the opinions of the commenter's. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

From: Wendy Hidalgo [mailto:whidalgo@socal.rr.com]
Sent: Tuesday, October 05, 2010 11:57 AM
To: Coregroup@calgrovecorridorcoalition.com; Ken Pulskamp; Jason Smisko
Subject: Santa Clarita Valley

If this proposal of 500,000 residents is correct – we will have serious problems for the future – water??, traffic??, schools??, hospital/s??? [I have been in the ER at Henry Mayo and it is not large enough to accommodate the residents we have living in SCV now. [Our Sherriff's station is not large enough to accommodate the amount of Deputies/Staff needed to protect our community...nor do we have enough Deputies/Staff at our Sheriff's station currently.]Our libraries are very small and under stocked now how could SCV even begin to help our children – our future – without proper resources??

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I moved out to Santa Clarita 20 yrs. ago from Northridge because of the open spaces and beautiful rolling hills. Newly married and ready to start a family – we thought SCV was the perfect place to do that...and it was...but it has been changing for 20 yrs. now. Now those hills are disappearing and more and more crowded spaces are spreading. The traffic has continued to become worse over the years even though they have expanded the freeways many times. We were here for the Northridge earthquake and getting to SF Valley for work was a nightmare when the freeways were down...if we have another tragedy 500,00 extra residents will make it impossible to leave the SCV. The uniqueness of Santa Clarita's charm is disappearing and we are beginning to look like any other downtown city.

5

I am involved in an International Student program and 60+ students come to Santa Clarita and stay with host families for approx. 1 month. They love the special look of this valley, but I fear that this great valley will begin to look like Chatsworth, Granada Hills, Mission Hills and of the cities in San Fernando Valley – that are a grid of streets and square house in rows of neighborhoods with a Convenience Store on every corner. I am afraid that these students will not desire to come here and show an interest in College of the Canyons, Master's College or Cal. Arts. Bridging the gap between other countries will become nil and our residents will not have the opportunity to learn about another culture and reach out to the future generation.

6

For the future of my family, the residents of this valley and reaching out to International visitors – please put a stop to the overdevelopment of Santa Clarita Valley.

7

Wendy Hidalgo

Program Leader

E F International

Homestay for Santa Clarita

661-250-0177 hm

661-313-1303 cell

whidalgo@socal.rr.com

11/6/2010

Jason Smisko

To: Lisa Webber
Subject: RE: Santa Clarita Valley

From: Wendy Hidalgo <whidalgo@socal.rr.com>
To: Ken Pulkamp
Sent: Tue Oct 05 20:47:24 2010
Subject: RE: Santa Clarita Valley

What kind of response is this??? I'm talking about the entire Santa Clarita Valley... population increase by 550,000 is too much!!! You need to listen to the residents of this valley and not just think about your paycheck!! Your response is just about the City of Santa Clarita what about all the other cities in the Santa Clarita Valley??? Yes it's the unincorporated areas that I don't want to see change..unless you want to build all these homes in your own backyard and take away the beautiful view of the mtns.

8

May you and your family never suffer a serious health issue and sit in the hallways of Henry Mayo while all the 550,000 residents are in line before you...

From: Ken Pulkamp [mailto:KPULSKAMP@santa-clarita.com]
Sent: Tuesday, October 05, 2010 4:46 PM
To: whidalgo@socal.rr.com
Subject: RE: Santa Clarita Valley

Dear Wendy Hidalgo:

Today the population of the City of Santa Clarita is approximately 175,000. Under OVOV it is anticipated that the population of the City will grow by roughly 45,000 to a total of about 220,000 residents. Since incorporation the City has approved building permits for less than 300 residential units per year. OVOV does not increase that level of development. Assuming that growth will continue to follow it's historic rate it will take over 50 years for the City to reach it's OVOV build-out population of 220,000 residents.

The vast majority of the growth is anticipated to occur within the unincorporated areas governed by the County Board of Supervisors. While we have been successful in working with County Regional Planning staff to reduce some of the proposed growth, it is still anticipated there will be growth of approximately 170,000 residents in the unincorporated areas.

It is the Board of Supervisors not the City Council that will be making decisions on approximately 80% of the growth projected to occur under OVOV.

Sincerely,

Ken Pulkamp

City Manager

11/6/2010

Letter No. D15 Letter from Wendy Hildago, October 5, 2010

Response 1

The commenter stated that given the overall growth estimates for the Valley of 500,000 residents serious problems regarding water, traffic, schools, hospitals. The commenter should be aware that the population of the City of Santa Clarita is approximately 175,000. Under OVOV it is anticipated to grow by roughly 45,000 to a total of about 220,000 residents. Since incorporation the City has approved building permits for less than 300 residential units per year. OVOV does not increase that level of development. Assuming that growth will continue to follow its historic rate it will take over 50 years for the City to reach its OVOV buildout population of 220,000. The vast majority of growth is anticipated to occur within the unincorporated areas governed by the County Board of Supervisors. While the City has been successful in working with the County Regional Planning staff to reduce some of the proposed growth, it is still anticipated that there will be growth of approximately 170,000 residents in the unincorporated areas. It is the Board of Supervisors not the City Council that will be making decisions on approximately 80 percent of the growth projected to occur under OVOV.

The City of Santa Clarita OVOV Draft Program EIR, Section 3.13 Water Service indicates that water resources can served the proposed population within the City. OVOV Draft Program EIR Section 3.2, Transportation and Circulation, page 3.2-1 states:

Comparison of existing conditions to the proposed OVOV plan indicates that four of the five roadway segments that exceed LOS F for existing conditions are forecast to operate at LOS E or better with the proposed OVOV plan. The fifth segment that is at LOS F for existing conditions, McBean Parkway south of Avenue Scott, is shown to remain at LOS F with the OVOV plan. However, the V/C ratio at that location does not increase with the OVOV plan. Buildout of the City's proposed General Plan as compared to the current General Plan would reduce overall traffic on the City's roadways, including those monitored by the Los Angeles County Congestion Management Program (CMP), and at principal intersections. However, without implementation of mitigation measures, impacts would be potentially significant. Potential impacts on roadway segments and intersections would be assessed on a project-by-project basis as buildout occurs. The proposed General Plan includes goals, objectives, and policies that each individual development within the Planning Area would be required to abide by to help in reducing the amount of vehicular traffic on the local roadway system. The proposed General Plan includes goals, objectives, and policies relating to parking, safety evacuation routes, hazardous conditions on roadways, and alternative transportation. With implementation of mitigation measures, potential impacts on traffic and circulation would be less than significant.

OVOV Draft Program EIR Section 3.15, Public Services concludes that both schools and hospitals will have less than significant impacts with implementation of the Plan.

Response 2

The commenter stated that the emergency room at Henry Mayo is not large enough to accommodate the residents living in Santa Clarita Valley at this time. OVOV Draft Program EIR Section 3.18, page 3.15-18 states the following regarding expansion to Henry Mayo Hospital:

As of 2008, HMNMH has received City approval to expand its facilities to better meet the needs of the OVOV Planning Area residents. Funding is a major factor in determining if the medical resources of the City's Planning Area are met. Based on the City's existing medical facilities, the increase in residents would require new facility construction or large-scale expansion of existing facilities to accommodate the additional beds required to treat and provide medical services to the growing area (Goal LU 8, Objective LU 8.1, Policy LU 8.1.7).

Response 3

The commenter stated that neither the Sheriff station nor the number of deputies is large enough to accommodate proposed growth. OVOV Draft EIR Section 3.15 Public Services, page 3.15-53 states with regard to Sheriff Services:

The Los Angeles County Sheriff's Department provides law enforcement services in the City's Planning Area. The Sheriff's Department oversees general law and traffic enforcement within the City, while the California Highway Patrol (CHP) has jurisdiction over traffic on State highways and in the unincorporated areas. The Los Angeles County Sheriff's Department administers the incarceration facility. The standard level of service for the Los Angeles Sheriff's Department is to have one officer per 1,000 residents. There would need to be an additional 104 sworn officers within the City's Planning Area, from 2008 until buildout, to adequately meet the 1-sworn-officer-per-1,000-residents standard. The incorporation of the proposed General Plan goals, objectives, and policies and the implementation of mitigation measure MM 3.15-4 regarding the payment of mitigation fees, impacts on police protection would be less than significant.

Response 4

The commenter stated that the libraries are very small and understocked and how will children's needs be met without proper resources. OVOV Draft Program EIR Section 3.15, Public Services page 3.15-1 states the following regarding library service needs:

The potential impacts on community facilities found within the City's Planning Area included an analysis on the number of library items, such as books, periodicals, videos, CDs and CD-ROM software, audio recordings, audio books, DVDs, and pamphlets; library square feet, and the number of library meeting rooms. Each impact area had the criteria of

- *2.75 items per resident, and*
- *0.5 square feet per resident*

Currently, there is a surplus of 62,620 library items, and a deficit of 46,718 square feet. At buildout there would need to be 756,250 library items and 137,500 square feet.

With the implementation of the planned library expansions and the inclusion of the existing resources there would be a deficit of 195,936 library items and a surplus of 45,172 square feet. With the implementation of the proposed General Plan goals, objectives, policies, and mitigation measure MM 3.15-1 provided in this section, the potential impacts on community facilities would be less than significant.

Response 5

The commenter stated that the Santa Clarita Valley has changed since she moved here 20 years ago. Traffic has increased and gotten worse, hillsides are disappearing, and more crowded spaces are spreading. The commenter indicated that Santa Clarita's uniqueness is disappearing and Santa Clarita is looking like any other downtown City. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter stated that she is involved in an International student program and is concerned that international students might not want to come to Santa Clarita and show an interest in Master's College, Cal Arts or College of the Canyons and consequently bridging the gap between other countries with residents will become nil. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Response 8

The commenter was concerned with a response to her initial comments submitted via email. She indicated that the response was only about the City of Santa Clarita and questioned about all of the other cities in the Santa Clarita Valley. The commenter indicated that she did not want to see the unincorporated areas change.

While the OVOV Planning document takes into consideration the cumulative growth of the unincorporated areas, the City can only Plan for those areas that are within its jurisdictional limits. As a matter of note, there are no other cities in the Santa Clarita Valley. Comments to planning for the unincorporated areas should be directed to the County of Los Angeles. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Ken Pulskamp
Sent: Thursday, October 14, 2010 5:04 PM
To: Jennifer Kilpatrick
Cc: Laurene Weste; Marsha McLean; Bob Kellar; Frank Ferry; Laurie Ender
Subject: RE: OVOV - Safety Element and Land Use Element - Bermite & Hazardous Materials

Dear Ms. Kilpatrick:

Thank you for your correspondence regarding the One Valley One Vision (OVOV) General Plan. The draft General Plan and it's associated Draft Environmental Impact Report are now being circulated in a 90-day CEQA review period and the public hearing process before the City's Planning Commission commenced on October 5, 2010. Your comments to add additional information about the status of the remedial orders and more detail about clean-up activities at Whittaker-Bermite into both the Safety Element and the Land Use Element will be considered and incorporated, as appropriate. Your comments with a written response from the City will be incorporated into the Final EIR that will be reviewed by both the Planning Commission and the City Council as part of its decisionmaking process. We appreciate your review of the document and encourage you to remain engaged in the public hearing process for the proposed OVOV General Plan and Draft Program EIR that will extend through the remainder of 2010 and into 2011.

Sincerely,

Ken Pulskamp
City Manager

From: Jennifer Kilpatrick [mailto:jekilpatrick@hotmail.com]
Sent: Sunday, September 26, 2010 2:48 PM
To: Ken Pulskamp; Laurene Weste; Marsha McLean; Bob Kellar; Frank Ferry; Laurie Ender
Subject: OVOV - Safety Element and Land Use Element - Bermite & Hazardous Materials

I was looking at the Draft Safety Element for the OVOV General Plan update concerning earthquake issues. Specifically, I am pleased to see that the risks presented by the San Gabriel Fault are properly addressed. (A formerly hot button issue for me.)

1

However, as to page S-25 et seq. of the Safety Element, it is clear that the City's General Plan consultant hasn't addressed the Hazardous Materials at Bermite. I think The City needs to mention the DTSC remediation orders for that property in that section of the Safety Element. I also think that you need to generally describe what is on the property in the Hazardous Materials section, and in terms of text rather than cross-reference. It's important to do so in the context of meeting the General Plan consistency requirements of state law, in terms of General Plan to Specific Plan to Zoning/Development Conditions consistency, e.g. DS-12.

2

The draft plan's Land Use Element at page L-11 is also wildly inadequate, in terms of describing the DTSC remediation order for Bermite, let alone DS-12's status as part of an ordinance previously enacted by the City.

3

Bluntly stated, I hope the City Council will not err in adopting a Safety Element and a Land Use Element of the General Plan which by their silence undermines or are inconsistent with the City's previously enacted Development Agreement ordinance which incorporates by reference all of the Porta Bella development conditions. Remember that in enacting General Plan amendments, the finished product, i.e. the new General Plan, needs to be consistent with ordinances previously adopted by the City.

4

As a practical matter, I note that when I bought a copy of the City's General Plan way back in 1985, it contained an inventory of all of the known California and Federally listed contaminated properties in the City. Listing all of those properties remains a good land use planning policy, in terms of General Plan content, because it underpins the various City Councils' longstanding objectives of not allowing housing development on contaminated properties, as well as supporting other agencies remediation goals generally.

5

11/6/2010

Letter No. D16

Letter from Jennifer Kilpatrick, September 26, 2010

Response 1

The commenter stated that the Draft Safety Element properly addressed the risks presented by the San Gabriel Fault. The comment raises issues related to the General Plan that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter stated that the General Plan Safety Element did not address the hazardous materials at Whitaker Bermite, specifically that the element should reference the DTSC remediation orders. The commenter stated that it is important to do so in the context of meeting the General Plan consistency requirements of state law. These issues provided by the responder are noted. These are project specific-related items and not appropriate for a General Plan level discussion. The General Plan does have language on page L-18 about the Whittaker-Bermite site, the clean-up effort, remediation, avoiding future health risks and cooperation with environmental and other agencies for productive reuse.

The City's Hazard Mitigation Plan identifies the total number of contaminated sites in the City. The County of Los Angeles Fire Department maintains a list of actual locations for its inspections. As noted on page S-26, the U.S. Environmental Protection Agency and the State Department of Toxic Substances also maintain data on this.

Response 3

The commenter states that Land Use Element, page L-11 is wildly inadequate in terms of the DTSC remediation and the DS-12 status. The City has revisited the discussion on page L-11 and does not believe the discussion to be inadequate. Please see **Response 2**, above. These are project specific-related items and not appropriate for a General Plan level discussion. Nonetheless, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter states that she does not wish the City Council to err in adopting a Land Use Element or Safety Element because of a lack of reference to the previously approved Porta Bella Development Agreement. The commenter states that the OVOV General Plan needs to be consistent with ordinances previously adopted by the City. The lack of specific reference to any development agreement previously

adopted by the City Council does not deem the Plan inconsistent with said development agreements. These issues provided by the responder are noted however, these are project specific-related items and not appropriate for a General Plan level discussion. Nonetheless, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter stated that the City's 1985 General Plan included an inventory of all known California and Federally listed contaminated properties in the City. The commenter stated that listing all contaminated properties remains a good land use planning policy because it underpins the City Council's longstanding objective of not allowing housing development on contaminated properties as well as supporting other agencies' remediation goals generally. The City decided not to include a listing of all contaminated properties as the list is continually changing. The goals and policies outlined in the Safety Element will continue to protect existing and future residents from safety issues.

Jason Smisko

From: Ken Puskamp
Sent: Monday, October 18, 2010 3:20 PM
To: grandmabevec@aol.com
Cc: Paul Brotzman; Jason Smisko
Subject: RE: Save Our Valley

Dear Ms. Celentano:

Thank you for your correspondence regarding the OVOV project and its Draft Program Environmental Impact Report (EIR). As this was received during the project's 90-day California Environmental Quality Act review period, your comments with a written response from the City, will be incorporated into the Final EIR that will be reviewed by both the City's Planning Commission and City Council as part of its decision-making process. We encourage you to remain engaged in the public hearing process for the proposed OVOV General Plan and Draft Program EIR that will extend through the remainder of 2010 and into 2011.

Today the population of the City of Santa Clarita is approximately 175,000. Under OVOV it is anticipated that the population of the City will grow by roughly 45,000 to a total of about 220,000 residents. Since incorporation the City has approved building permits for less than 300 residential units per year. OVOV does not increase that level of development. Assuming that growth will continue to follow its historic rate it will take over 50 years for the City to reach it's OVOV build-out population of 220,000 residents.

The vast majority of the growth is anticipated to occur within the unincorporated areas governed by the County Board of Supervisors. While we have been successful in working with County Regional Planning staff to reduce some of the proposed growth, it is still anticipated there will be growth of approximately 170,000 residents in the unincorporated areas. As a result, the Board of Supervisors, not the City Council, will be making decisions on approximately 80% of the growth projected to occur under OVOV.

In the near future the County will begin holding hearings on their Environmental Impact Report related to their portion OVOV. I would encourage you to communicate your concerns to the County as well.

I applaud your informed involvement with issues concerning our valley.

Sincerely,

Ken Puskamp
City Manager

From: grandmabevec@aol.com [mailto:grandmabevec@aol.com]
Sent: Tuesday, October 05, 2010 8:22 AM
To: Jason Smisko; Coregroup@calgrovecorridorcoalition.com; Ken Puskamp
Subject: Save Our Valley

This e-mail is being written to protest the OVER-EXPANSION planned for our "little" valley.
PLEASE DO NOT CONSIDER A PLAN TO MAKE THIS AREA INTO THE SAN FERNANDO VALLEY!!!
We do not want to have a population of over 500,000!!!
Sincerely
Beverly Celentano
Resident since 1973

1
2

11/6/2010

Letter No. D17

Letter from Beverly Celentano, October 5, 2010

Response 1

The commenter indicated that she is protesting the over-expansion for her "little valley. The commenter indicated that she did not want consideration of a Plan that would turn the area into the San Fernando Valley. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter stated that she did not want a population of over 500,000. The commenter should be aware that the population of the City of Santa Clarita is approximately 175,000. Under OVOV it is anticipated to grow by roughly 45,000 to a total of about 220,000 residents. Since incorporation, the City has approved building permits for less than 300 residential units per year. OVOV does not increase that level of development. Assuming that growth will continue to follow its historic rate, it will take over 50 years for the City to reach its OVOV buildout population of 220,000. The vast majority of growth is anticipated to occur within the unincorporated areas governed by the County Board of Supervisors. While the City has been successful in working with the County Regional Planning staff to reduce some of the proposed growth, it is still anticipated that there will be growth of approximately 170,000 residents in the unincorporated areas. It is the Board of Supervisors not the City Council that will be making decisions on approximately 80 percent of the growth projected to occur under OVOV.

LAW OFFICES OF KWANG M. LEE

3731 WILSHIRE BOULEVARD, SUITE 514
LOS ANGELES, CALIFORNIA 90010

TELEPHONE (213) 927-8007
FACSIMILE (213) 927-8001

October 19, 2010

VIA FACSIMILE and U.S. MAIL

Planning Department
Attn: Maggie Sanchez
23920 Valencia Blvd., Suite 300
Santa Clarita, CA 91355

RE: Calgrove Kennels

Dear Ms. Sanchez:

Thank you for taking my call and answering a few of my questions today. I represent Mr. Michael Lovingood at Calgrove Kennels located at 24314 The Old Road, Newhall, CA 91321. I realize that the property is part of the County of Los Angeles and not a part of Santa Clarita. However, my client is concerned that One Valley One Vision, "OVOV", will result in the City of Santa Clarita expanding spheres of influence and causing changes to zoning laws that may have an adverse affect on his place of business.

The open ended question is what effect will OVOV have on Calgrove Kennels? There are a few specific questions if and when OVOV is adopted and implemented. One, will Calgrove Kennels be allowed to continue operations as usual? Two, will there be any building restrictions placed on Calgrove Kennels? If yes, what are the potential types of restrictions? This question results from the fact that Mr. Lovingood has a lot of undeveloped areas on his property. Three, will Calgrove Kennels be allowed to be sold in the future without restrictions of any kind? Any type of restrictions may result in significant diminished sales potential.

- 1
- 2
- 3
- 4
- 5
- 6

Sincerely,

John Lee, Esq.

cc: Michael Lovingood

RECEIVED
PLANNING DIVISION
OCT 21 2010
CITY OF SANTA CLARITA
CITY OF SANTA CLARITA



Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



Richard J. Bruckner
Director

October 26, 2010

John Lee, Esq.
3731 Wilshire Boulevard, Suite 514
Los Angeles, CA 90010

RECEIVED
PLANNING DIVISION
NOV 02 2010

RE: ONE VALLEY ONE VISION

CITY OF SANTA CLARITA

Dear Mr. Lee:

I am in receipt of your letter to Maggi Sanchez, City of Santa Clarita staff, dated October 19, 2010, regarding One Valley One Vision, a joint planning effort between the City of Santa Clarita and the County of Los Angeles to update each jurisdiction's long-range planning documents for the Santa Clarita Valley. It is my understanding that you represent Calgrove Kennels, which operates a dog kennel on a property located at 24314 The Old Road. Since your client's property is located in the jurisdiction of the County of Los Angeles, your letter has been referred to the Department of Regional Planning for a response, with a copy provided to City of Santa Clarita staff.

The currently adopted land use designation of the property is W (Floodway/Floodplain). The currently adopted zoning designation of the property is A-2-1 (Heavy Agricultural Zone – 1 acre minimum lot size). Pursuant to the One Valley One Vision effort, Department of Regional Planning staff is proposing changes to the land use and zoning designations of the property. The proposed land use designation of the property is IL (Light Industrial). The proposed zoning designation of the property is M-1 (Light Manufacturing Zone). Please refer to the attached maps. These maps were generated by the OVOV-NET interactive mapping application, which can be accessed online at <http://planning.lacounty.gov/ovovnet>.

According to Section 22.32.040 of the County Zoning Ordinance, a dog kennel is a permitted use in the M-1 zoning designation. Therefore, the existing dog kennel will be able to continue operations if the proposed land use and zoning designation changes are adopted by the Board of Supervisors.

If the proposed land use and zoning designation changes are adopted by the Board of Supervisors, any future development of the property would need to be consistent with the IL land use designation and the M-1 zoning designation. The County's Draft Santa Clarita Valley Area Plan (developed pursuant to the One Valley One Vision effort) states that the IL land use designation "provides for industrial districts in areas with adequate access, infrastructure, and services and is intended to accommodate the most intensive types of industrial uses allowed in the planning area. Allowable uses in this designation

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John Lee, Esq.
October 26, 2010
Page 2 of 2

include storage and distribution of goods; vehicle storage; contractor's storage facilities; batch plants; heavy equipment repair and sales; wholesale sales; heavy vehicle repair; and supportive commercial uses. Allowable uses shall have a maximum Floor Area Ratio (FAR) of 1.0. Specific allowable uses and development standards shall be determined by the underlying zoning designation." Regulations concerning the M-1 zoning designation, including specific allowable uses and development standards, are contained in Part 2 of Chapter 22.32 of the County Zoning Ordinance. The County's Draft Santa Clarita Valley Area Plan can be viewed online at <http://planning.lacounty.gov/ovov>, while the County Zoning Ordinance can be viewed online at <http://planning.lacounty.gov/luz>.

I hope that this information is useful to you. If you have any questions, please contact me at mglaser@planning.lacounty.gov or (213) 974-6476 between 7:30 a.m. and 5:30 p.m. Monday through Thursday. Our offices are closed on Fridays.

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Richard J. Bruckner,
Director



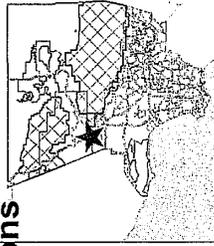
Mitch Glaser, AICP
Supervising Regional Planner
Countywide Studies Section

MWG:mwg

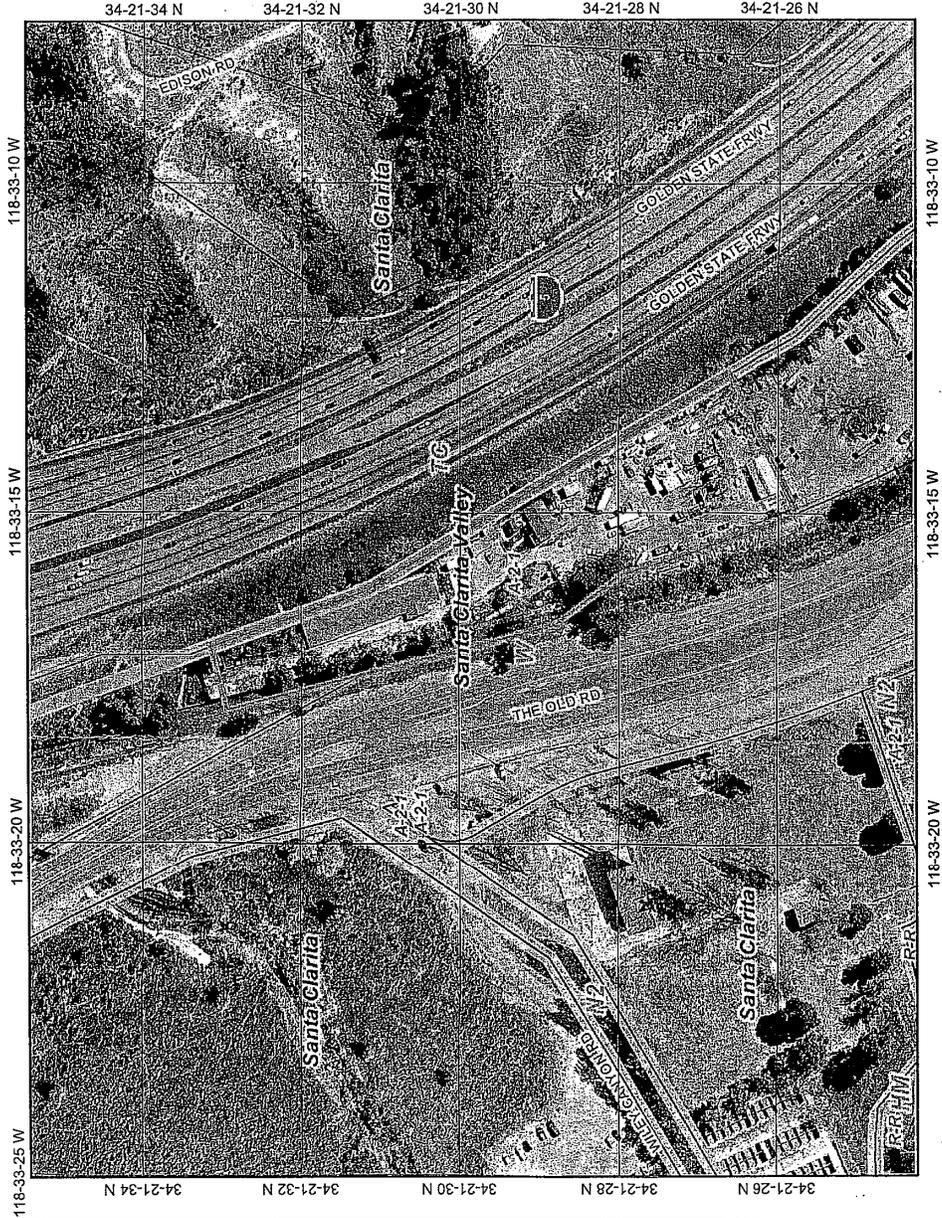
Attachments

C: Jason Smisko, City of Santa Clarita

24314 The Old Road -- Current Land Use & Zoning Designations

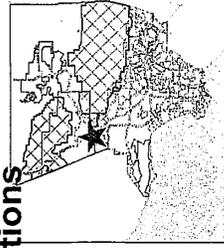


- Legend**
- OVVOV area
 - OVVOV area buffer
 - mask
 - Parcel Boundary
 - Freeway Shield
 - Ramp, Interchange, or Feeder
 - Ramp
 - Ramp
 - Ramp
 - Ramp
 - Freeway
 - Arterial Street
 - Highway
 - Zoning (Boundary)
 - Santa Clarita Valley Area Plan - adopted
 - AP - Airport
 - C - Commercial
 - HM - Hillside Management
 - I - Industry
 - N1 - Non-Urban 1 (0.5 du/ac)
 - N2 - Non-Urban 2 (1.0 du/ac)
 - OBLM - Open Space (Bureau of Land Management)
 - O-NF - National Forest
 - O - Open Space
 - O-P - Open Space Parks
 - O-W - Water Body
 - P - Public Service Facilities
 - RR - Resort Recreational
 - SP - Specific Plan
 - TC - Transportation Corridor
 - TU - Urban 1 (1.4, 1.6, 3.1 du/ac)

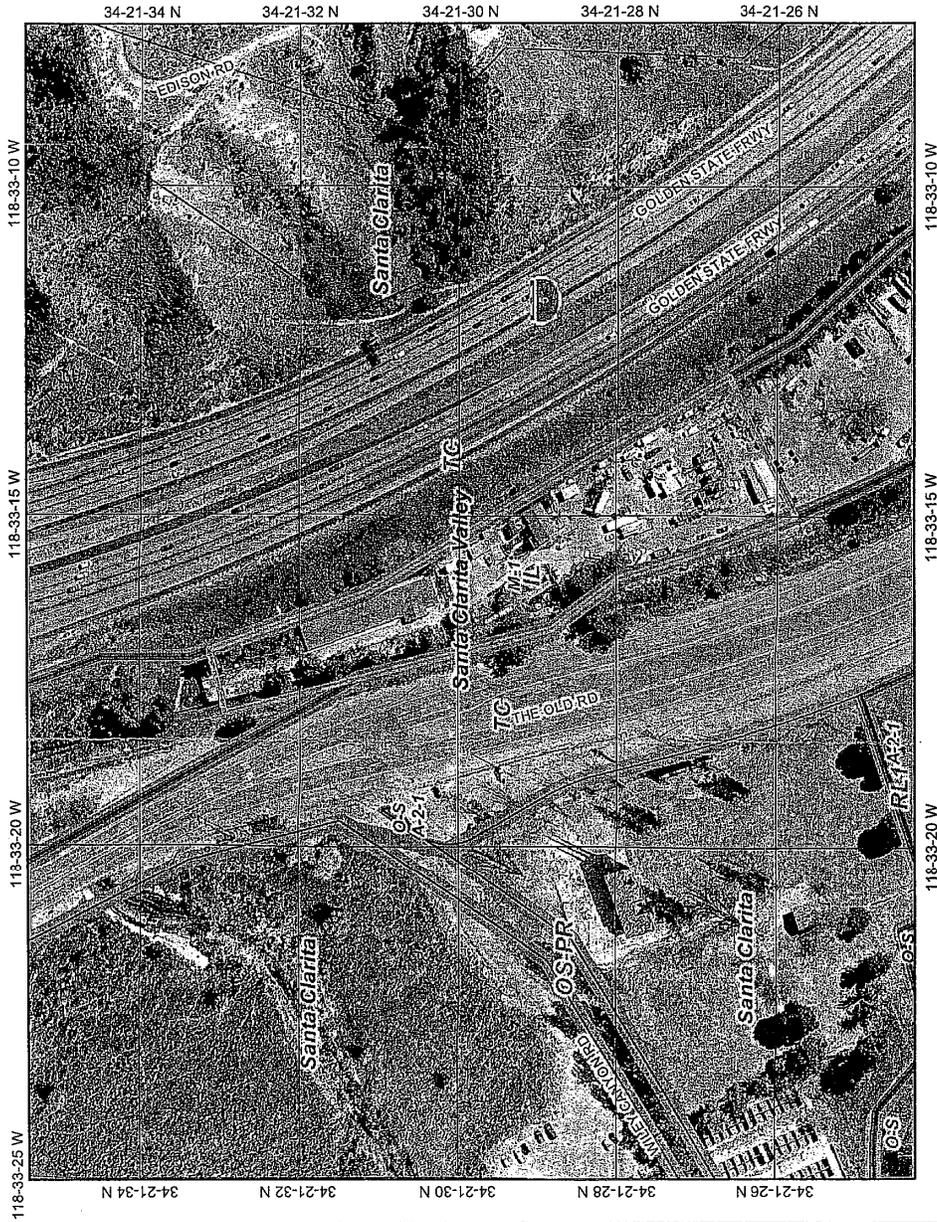


This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

24314 The Old Road -- Proposed Land Use & Zoning Designations



- Legend**
- OVVOV area
 - OVVOV area buffer
 - mask
 - Parcel Boundary
 - Freeway Shield
 - Ramp, Interchange, or Feeder
 - Ramp
 - Ramp
 - Ramp
 - Ramp
 - Ramp
 - Freeway
 - Arterial Street
 - Highway
 - Zoning Proposed (Boundary)
 - Santa Clarita Valley Area Plan - Proposed
 - LARIAC2 1f
 - City and Community
 - INCORPORATED CITY
 - UNINCORPORATED AREA
 - HILLSHADE



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Letter No. D18

Letter from Law Offices of Kwang M. Lee, October 19, 2010

Response 1

The comment acknowledges that while the property in question is located within the County of Los Angeles, there is concern with regard to the City of Santa Clarita and its sphere of influence. The comment raises economic and political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The comment asks what would happen to the Calgrove Kennels located on 24314 The Old Road, Newhall, California. The currently zoned land use designation of the property is W (Floodway/Floodplain). The currently adopted zoning designation of the property is A-2-1 (heavy Agricultural Zone) 1 acre minimum lot size. The proposed OVOV land use designation of the property is IL (Light Industrial). The proposed County zoning designation is M-1 (Light Manufacturing Zone). A dog kennel is a permitted use in the M-1 zoning designation. Therefore, the dog kennel will be able to continue operations if the proposed land use and zoning designation changes are adopted by the Board of Supervisors.

Response 3

The comment asks if the kennels will be allowed to continue and will there be any building restrictions. Please see **Response 2**, above with regard to continuance of use. Regulations concerning the M-1 zoning designation, including specific allowable uses and development standards, are contained in Part 2 of Chapter 22.32 of the County Zoning Ordinance. The proposed OVOV General Plan update does not propose zoning ordinance changes.

Response 4

The comment addresses the undeveloped land at 24314 The Old Road, Newhall, California. that does not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The comment raises economic issues with regards to limitations of selling of the subject property that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Ken Pulskamp
Sent: Wednesday, October 20, 2010 2:38 PM
To: terry@cdforensics.com
Cc: Paul Brotzman
Subject: RE: a note from a constituent...
Attachments: ar-OVOV2010numbers.doc

Dear Terry:

Thank you for your correspondence regarding the One Valley One Vision General Plan. The draft General Plan and its associated Draft Environmental Impact Report are now being circulated in a 90-day CEQA review period and the public hearing process before the City's Planning Commission commenced on October 5, 2010.

In terms of your concerns about growth in the Santa Clarita Valley, I would encourage you to please read the attached article which should shed some perspective on the issue and summarize the anticipated growth patterns and capacities.

I am not aware of the City subsidizing any apartment homes that you reference--nor does it have a wish for low-income housing. We do, however, have a desire and a legal responsibility per State law to provide a range of housing types for all of the demographic ranges that live and work in the Valley. This is explained in detail in the City's Draft Housing Element which you can read on or website at http://www.santa-clarita.com/ovov/_pdf/Draft%20Elements/GeneralPlan/8-HousingElement.pdf.

We encourage you to remain engaged in the Planning Commission public hearing process for the proposed OVOV General Plan and Draft Program EIR that will extend through the remainder of 2010 and into 2011. The next public meeting is scheduled for November 16, 2010, 7:00 p.m., in the City Hall Council Chambers.

Sincerely,

**Ken Pulskamp
City Manager**

From: Terry Cosley <terry@cdforensics.com>
To: Ken Pulskamp
Sent: Tue Oct 05 07:28:18 2010
Subject: a note from a constituent...

Mr. Pulskamp,
My parents first moved our family into the Sand Canyon area in the summer of 1972. We moved here from Woodland Hills to escape the insidious urban sprawl of the SFV and for horse property. I was involved with showing horses, raising sheep for 4-H and riding motorcycles in what is now known as Crystal Springs. It was an idyllic childhood in a charming town referred to as "the sticks" by people from the more 'sophisticated' Los Angeles area. I guess we were a bit remote and laid back by comparison, but that was all part of the appeal.

1

11/6/2010

I'm gravely concerned with the direction the city has taken in the last 20+ years. There seems to be an attempt to urbanize this valley, but without much thought as to how it may adversely impact the residents. Like most people, I enjoy the restaurants and shopping opportunities as one of the "plusses" to growth. However, I'm disturbed by the ever-increasing expansion of low income, subsidized housing and the burgeoning growth of apartment homes. The traffic along Soledad Canyon Rd. and the 14 and 5 freeways largely due to the large populations of both the Santa Clarita and Antelope Valleys has adversely affected the quality of life of the residents. I plan my trips across the SCV around rush hours! That's so bizarre to me. I used to ride my horse from my parents' house down to the drive-through at the McDonalds on Soledad Canyon.

I realize that times and circumstances change. I just think it could be done with a greater concern for quality of life issues. With plans to increase development in the SCV when we're also having to address water, pollution and traffic concerns it would appear to your constituents that a deaf ear is being turned toward us.

We don't want indiscriminate development. We in Canyon Country, really don't want to shoulder the burden of the city's wish for low-income housing.

I hope you will consider my concerns before pushing through your agenda.

Respectfully,
Terry Cosley

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<ar-OVOV2010numbers.doc>

11/6/2010

WHAT'S REALLY GOING ON WITH THE NEW GENERAL PLAN?

By Paul Brotzman, Director, Planning & Community Development

Right now, it is estimated that approximately 177,500 people live in the 55-square mile, City of Santa Clarita. Would you be surprised to learn that according to the City's new joint general plan, the *ultimate* number for our City's population based on current boundaries is estimated at 222,500, and without annexations, based on growth rates since Cityhood, it will be 50 years before the City reaches that population?

Larger numbers about ultimate build out in our City have been bandied about by pundits, quoting upwards of a half million people in the City. These population numbers for our City are wrong. Here's how the numbers shake out:

- Right now we have **56,000 residential units** in the City.
- Since cityhood (1987), a total of 6,000 of those 56,000 have been built.
- That's right; just 260 residential units per year on average since the formation of the City.
- There are another 7,000 residential units *approved* by the City but not yet built.
- And, there is a capacity for another 8,000 residential units in the City to occur.
- So, with 7,000 units approved, the possibility for another 8,000 to come, that's 15,000 new units in the City—period!
- Averaging three people per unit, that's 45,000 new people in the City.
- Add that to our 177,500 and you have an ultimate build out of 222,500 in the City from now to, well, forever.

So where did the larger, nearly-half-a-million-people- in-Santa Clarita-number-in-the-new-general-plan come from?

It probably came from including the build out number projected in the *unincorporated areas* (non City) of our Valley. For those concerned about growth, the good news is that the County has reduced its ultimate development potential. However, right now, there

are 33,500 units, including those in the Newhall Ranch project, approved by the County but not yet built in the unincorporated areas of the Valley. Add to this another 18,000 units that could be approved in the future by the County within its planning area. You then have a capacity in the unincorporated area for an additional 51,500 residential units. Assuming an average of three people per unit, and you arrive at a potential population of 154,500 additional residents that the County is projecting.

If you add that to the existing 85,000 residents in the unincorporated area. That gives you a build out population in the unincorporated area of 234,500. When you add that to the City's projected 222,500 residents, you can see where the 450,000 + number is derived. Further, it should be noted that the developable area of the County in OVOV is approximately four times that of the City.

While the City and the County would like to see a reduction in urban sprawl in the Santa Clarita Valley, the County is already under pressure from many property owners in the unincorporated area who feel that their future development potential has been unfairly reduced. Property owners do have legal rights to develop their property so "just saying no" to any and all future development is not an option.

The key goals of the new City/County joint general plan include: preserving open space and creating a greenbelt around the valley; strategically building on our town center; and creating more jobs through out the Valley in order to reduce traffic congestion and provide economic opportunities here at home. These goals are interconnected and each plays a part in creating a robust future for our City and for the Santa Clarita Valley.

Who Decides	Existing Population	Projected Growth	Projected Build out
<i>Board of Supervisors</i>	85,000	154,500	239,500
<i>City Council</i>	177,500	45,000	222,500
<i>Total</i>	262,500	199,500	462,000

** Figures are approximate estimates*

One of the areas our Valley is deficient in is jobs. Right now, the City estimates that half of our employed workforce commutes out of the Valley for work. One of the goals of the new general plan is to provide 1.5 jobs for every household upon build out, approximately doubling the amount of jobs in the Valley. To accomplish this goal we will need to add two jobs for every new household on a going forward basis. While this is a tall order, it can be done. One of the ways to achieve this goal is through more intense utilization of strategically located, non residential zoned land. Projects that include a mixed use (combining housing, office and retail in one project) will offer a great live-work-shop-play environment, much like what is being done successfully in Ventura, Pasadena, Santa Monica and many other well planned communities.

Residents, business owners, students, and elected officials have been involved with the OVOV process from the beginning with over 100 public meetings have been held. In fact, over the last decade, the new joint general plan process has had more community outreach and public participation than any other project in our City's history!

The new General Plan provides a blueprint that will guide the future of our Valley for the next 20 years and beyond. Our goal is to preserve what is great in our community and in the future, help bring about a beautiful, livable place to raise our families. Good planning that includes a "valley of villages," where people can live, work and shop in a livable and walkable area are portends of things to come.

Now, more than ever, it is important to preserve and in some cases enhance the community character of individual neighborhoods, plan to protect our open space and environment, and conserve resources. Residents have also told us that any new development should compliment and enhance the character of their neighborhood or community and that is the goal of this plan.

If you would like more information about One Valley One Vision, please visit the City's website at www.santa-clarita.com or call Jason Smisko, Senior Planner, at (661) 255-4330.

#

s/ms/grf/ar-OVOV2010numbers

Letter No. D19

Letter from Terry Cosley, October 5, 2010

Response 1

The commenter stated their concern for the quality of life and urbanization issues in Canyon Country in particular. The commenter is concerned with the ever-increasing expansion of low-income, subsidized housing and the growth of apartments. The commenter states that it would appear that the City is turning a deaf ear to its constituents.

This comment was responded by City staff on October 20, 2010. Attached to the response was an article prepared by Paul Brotzman, Community Development Director titled: "What's Really Going on with the New General Plan." The article summarized anticipated growth patterns and capacities. The City is not aware of the City subsidizing the apartment homes referenced in the commenter's email-nor does it have a wish for low-income housing. The City does, however, have a desire and a legal responsibility per State law to provide a wide range of housing types for all of the demographic ranges that live and work in the Valley.

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required

Jason Smisko

From: OVOV [OVOV@santa-clarita.com]
Sent: Monday, October 25, 2010 3:57 PM
To: Jason Smisko
Subject: FW: Release of GIS shapefiles

From: Glaser, Mitch[SMTP:MGLASER@PLANNING.LACOUNTY.GOV]
Sent: Monday, October 25, 2010 3:56:45 PM
To: Anthony Herda; OVOV
Cc: Brian A. Sandona; Franchino, Nick
Subject: RE: Release of GIS shapefiles
Auto forwarded by a Rule

Hi Anthony:

This request will be handled by our GIS Section. I have copied Nick Franchino, who is our GIS Manager. Nick or his staff should be able to advise you on the procedure for obtaining this data. Please let me know if I can be of further assistance.

Thanks,
Mitch

Mitch Glaser, AICP
Supervising Regional Planner
County of Los Angeles
Department of Regional Planning
Countywide Studies Section
(213) 974-6476

From: Anthony Herda [mailto:aherda@civiltec.com]
Sent: Monday, October 25, 2010 11:04 AM
To: ovov@santa-clarita.com; Glaser, Mitch
Cc: Brian A. Sandona
Subject: Release of GIS shapefiles

Dear Mr. Smisko and Mr. Glaser,

I am a consulting engineer working on behalf of the Santa Clarita Water Division of the Castaic Lake Water Agency (SCWD) in the planning phases of developing a recycled water distribution system. A portion of this planning effort involves an examination of future development within and affecting the SCWD Sphere of Influence.

We have developed a GIS related to the potential distribution of recycled water in the Santa Clarita Valley and would like to incorporate shapefiles related to future development. Referring to the Santa Clarita Valley Subdivision Activity Map (q:/projects/master/growth/mxd/growth2010.mxd), we would like access to the shapfiles pertaining to Pending, Approved and Recorded development at the City and County levels.

Civiltec has already initiated a Data License Agreement with the City of Santa Clarita and requests release of "City Subdivision Growth Shapefiles" (aka Digital Graphic Database) per the authorization granted by that

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11/6/2010

Agreement. Please advise us on how to proceed regarding gaining access to those data.

Civiltec desires licensure by the County of Los Angeles for access to those portions of the Santa Clarita Valley Subdivision Activity Map under the jurisdiction of the County. Please advise us on the procedure for obtaining the appropriate license and gaining access to those data.

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Regards,



Anthony Herda, Staff Engineer

CIVILTEC engineering, inc.

118 W. Lime Ave
Monrovia, CA 91016
office (626) 357-0588
fax (626) 303-7957
aherda@civiltec.com

11/6/2010

Letter No. D20

Letter from Anthony Herda, October 25, 2010

Response 1

The commenter requested shape files pertaining to Pending, Approved and Recorded development at the City and County levels. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: M naoum [mikenaoum@prodigy.net]
Sent: Monday, October 25, 2010 6:31 PM
To: Jason Smisko
Cc: OVOV
Subject: OVOV Circulation Element Questions

Hi Jason:

I had the following questions regarding the Circulation Element EIR section and the Austin Foust Traffic Study. If possible, I'd like responses by November 5, 2010. If that will pose an issue, please let me know (310-801-3841).

1

Questions from the Impact Sciences EIR – Section 3.2

- 1. Page 3.2.2 concludes that "With implementation of mitigation measures, potential impacts on traffic and circulation would be less than significant." Is this conclusion based on a comparison of the existing conditions versus OVOV or of the existing General Plan vs. OVOV. Also, is the conclusion based solely on the reduction in the number of "F" segments?
2. The EIR references the 2006 Transportation Development Plan which outlines a 58% service expansion in the "next several years". How much has service and ridership expanded since the TDP?
3. What is the acceptable County of Los Angeles Level of Service outside of the OVOV planning area?
4. Table 3.2-12 shows ADT declining by only 1% but Vehicle Miles Traveled dropping by 15% and trip length's being reduced by 1.9 miles under OVOV. What technical data and analysis is available to support this percentage change? Please supply if available.
5. What is the cost estimate and contribution rates per housing unit and sf of commercial/retail/industrial space to fund the improvements required under the Plan?
6. What is the LOS and Vehicle/Capacity calculations for the I-5 between the 5/14 interchange and the I-5/1405 intyexchange?
7. Page 3.2.64 references 3 freeway segments operating at "LOS F" during peak periods. For what distance from each of the measuring points will there be an "F LOS"?
8. Page 3.2.67 states "Adherence to the proposed General Plan goals, objectives and policies would

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1/27/2011

ensure that the planned improvements to the I-5 and SR 14 freeways would be implemented.” Please explain how. It strikes me that participating working with Caltrans is not the same as ensuring funding and building occurs as required for the Plan to work.

9

9. How are bus turnouts being accommodated on roads like Soledad that show no widening and likely don't have additional ROW room?

10

10. Policy C5.1.5 – What percentage of required bus turnouts can be built given current ROW's?

11

11. Policy C1.1.6 – How will facilities be funded?

12

12. What percentage of people use alternative means of transportation now (existing) versus planned under OVOV.

13

Austin Foust Traffic Study – Appendix 3.2 Questions

1. Page 1-7, Table 1-4 shows the City and County ICU calculation methodology. Which was used for analysis? What is the range of acceptable Saturation Flow Rates used in the industry?

14

2. Page 2-19 shows a 98% increase in trips but only a 68% increase in VMT's. What technical analysis supports this quantification? Please provide.

15

3. Table 3-1 shows ROW width for a 6-8 lane major highway of between 108' and 138'. Figure 3-1 shows a 6 lane major arterial highway detail. What item gets eliminated if the ROW is only 108'?

16

Thanks in advance!

Mike Naoum
mikenaoum@prodigy.net
 310-801-3841

1/27/2011

Letter No. D21

Letter from Mike Naoum, October 25, 2010

Response 1

This comment is an introduction to comments that follow. The responses to comments will be included in the Final EIR, with all other comments to the OVOV EIR. No further response is required.

Response 2

The commenter asked if the conclusion of no significance after mitigation for traffic and circulation was based on existing conditions to OVOV to existing General Plan to OVOV General Plan. The conclusions regarding significance are based upon the existing conditions analysis to the OVOV Plan. The conclusions are based upon the thresholds analysis found in Section 3.2 Transportation and Circulation page 3.2-31 and 32 of the OVOV Draft Program EIR.

Response 3

The commenter referenced the Draft EIR which stated that the 2006 Transportation Development Plan (TDP) outlines a 58 percent service expansion in the "next several years" and questioned how service and ridership have expanded since the preparation of the 2006 TDP.

Comparing FY 05-06 to FY 09-10 data, total ridership increased 5.19 percent while, the level of service increased 1.61 percent.

While the TDP did call for a 58 percent increase in service through 2015, the City decided not to implement many of the recommended service expansions due to the economic uncertainty, slowing development, and decreases in our projected funding levels which are fueled largely through sales tax. Bottom line is we did not want to introduce new service and then have to cut it in future years due to funding shortfalls.

The City has budgeted funds in 2011-12 FY to update the TDP so it reflects our current operating conditions and the City's "new normal" in terms of financial projections.

Response 4

The commenter asked what the acceptable level of service is outside of the OVOV Planning Area. This comment does not address the information contained in the Draft EIR and is not relevant to the OVOV Plan. No further response is required.

Response 5

The commenter requested the technical data and analysis necessary to support vehicle miles traveled figures. As stated in Section 3.2 Transportation and Circulation, page 3.2-58: "The traffic forecasting

process utilized by the SCVCTM also calculates vehicle miles travelled (VMT) based on the geographical placement of land uses within an area and the number of trips they generate.” Please see **Letter D37, Response 34**.

Response 6

The commenter asked for the cost estimate and contribution rates per housing unit and square footage of commercial/retail/industrial space to fund the improvements required under the Plan. The comment raises economic issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter asked for the LOS and vehicle capacity calculations for the I-45 between the I-5/SR-14 interchange and the I-5/I 405 interchange. The Level of Service for I-5 and SR-14 is discussed in Table 3.2-13, Freeway Segment level of Service found on page 3.2-65 and 66 of the draft Program EIR. The Draft Program EIR did not include the I-5/I-405 interchange as it is outside the OVOV study area. There is no information available for this segment of I-5 from the traffic study.

Response 8

The commenter states that page 3.2-64 references three segments that operates at LOS F during peak periods. The commenter asks for what distance from each of the measuring points will there be an LOS F? For freeway segments, the LOS is measured from interchange to interchange. It is assumed that the indicated LOS would exist for the entire freeway segment between the two adjacent interchanges.

Response 9

The commenter requested clarification as to how adherence to goals, objectives, and policies would ensure that planned improvements to the I-5 and SR-14 freeways would be implemented. The commenter felt that working with Caltrans was not the same as ensuring funding and building occurs as required for the Plan to work. The City has no control over I-5 improvements. As stated on page 3.2-59 of the Draft program EIR: “The City would also consider implementation of a joint City/County transportation management system impact fee to better address traffic impacts that cannot be mitigated (Policy C 2.6.2). The City would work with other local, regional, state, and federal agencies in identifying funding alternatives for the Santa Clarita Valley’s transportation systems (Policy C 2.6.3). These policies would help maintain a functional and adequate transportation system throughout the Santa Clarita Valley.”

The following policies are included in the EIR to demonstrate the Cities role in affected agencies in an effort to address regional traffic needs:

- Policy C 1.3.4:** Continue coordinating with Caltrans on circulation and land use decisions that may affect Interstate 5, State Route 14, and State Route 126, and support programs to increase capacity and improve operations on these highways.
- Policy C 1.3.8:** Participate in updates to the CMP and collaborate with Caltrans and Metro to revise CMP impact thresholds, ensuring that they are adequate and appropriate.
- Policy C 1.3.9:** Collaborate with Caltrans and Metro to implement the recommendations of the North County Combined Highways Corridors Study.
- Policy C 1.3.10** Support the Golden State Gateway Coalition in its advocacy efforts to improve the Interstate 5 corridor, recognizing that the corridor facilitates regional and international travel that impacts the Santa Clarita Valley.
- Policy C 2.6.1** Require that new development construct transportation improvements or provide its fair share of the cost of transportation such improvements, and ensure that required improvements or in-lieu contributions are in place to support the development prior to occupancy.
- Policy C 2.6.3:** Coordinate with Caltrans and other local, regional, state, and federal agencies in identifying and implementing funding alternatives for the Valley's transportation systems.

Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The comment wanted to know how bus turnouts would be accommodated on roads like Soledad that do not have additional right-of-way room. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The comment questions the percentage of required bus turnouts that can be built given current right-of-ways. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 12

The comment asked how facilities would be funded. The comment raises economic issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 13

The commenter asked for the percentage of people who currently use public transit versus planned ridership. The model assumed no change in transit ridership percentage between the base year model (2004) and the future year model. This is a conservative assumption. There is actually a small increase in trip ends between Current General Plan Buildout and Proposed OVOV Buildout, and a small decrease in total trips between Current General Plan Buildout and Proposed OVOV Buildout. This is due to changes in travel patterns associated with the land use changes.

Response 14

The comment states that Table 1-4 of the OVOV traffic study shows City and County ICU calculation methodology. The comment questions which was used for methodology and what is the range of acceptable Saturation Flow Rates used in the industry. The City's ICU Calculation Methodology was used for study intersections that are currently located in the City, and the County's ICU Calculation Methodology was used for study intersections that are currently located in unincorporated L.A. County. Saturation flow rates vary by jurisdiction, and can range from 1,500 to 1,800 vehicles/hour/lane for through lanes. Dual turn lanes are sometimes less than 1,500 vehicles/hour/lane.

Response 15

The comment states that page 2-19 of the traffic analysis shows a 98 percent increase in trips and a 68 percent increase in VMTs. Page 3.2-32 of the Draft EIR provides an update to the traffic study noting a 121 percent increase in trip ends attributed to OVOV. The 1.9 miles reduction traveled is a result of the location of land uses and access to alternative modes of transportation. Furthermore, by locating higher density in transit hub areas and along transit corridors, fewer vehicle trips are made. The Mixed Use

concept encourages more walkability to services and commercial opportunities. The Mixed Use placement along transit corridors also encourages the use of both Metrolink and bus service. The OVOV General Plan proposes a dispersion of employment opportunities and hubs throughout the community, resulting in less Vehicle Miles Traveled (VMT) and shorter trips to and from employment centers and a corresponding reduction in Greenhouse Gas (GHG) emissions.

Response 16

The comment states that Table 3.0-1 of the OVOV Traffic Study shows a right-of-way width for a 6- or 8-lane major highway. The comment further notes that Figure 3-1 shows a 6 lane major arterial roadway detail, and which item gets eliminated if the right-of-way is only 108 feet. The right-of-way has a range from 108 to 138 feet to allow for placement of either 6 or 8 lanes in addition to allowing for reductions due to physical constraints and obstructions.

Jason Smisko

From: M naoum [mikenauom@prodigy.net]
Sent: Monday, November 01, 2010 7:25 PM
To: Jason Smisko
Subject: RE: OVOV Circulation Element Questions

Jason:

Some of these comments and questions were provided during the Planning Commission hearings and soon after via e-mail two years ago. Why weren't those comments included in the original EIR?

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One additional question:

I noticed that SR-14 is at F levels under OVOV even with scheduled improvements to the freeway. With the 14 at F, the traffic counts on Sierra Highway, a common and heavily used alternative to the 14 (especially during times of heavy traffic) have only a minimal increase. Does Austin Foust think that drivers will not use this as a substitute for a gridlocked SR-14? Likewise, Placerita and Sand Canyons will have higher vehicle counts.

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Thanks.

Mike Naoum

--- On Mon, 11/1/10, Jason Smisko <JSMISKO@santa-clarita.com> wrote:

From: Jason Smisko <JSMISKO@santa-clarita.com>
Subject: RE: OVOV Circulation Element Questions
To: "M naoum" <mikenauom@prodigy.net>
Date: Monday, November 1, 2010, 5:03 PM

Dear Mr Naoum,

Thank you for your correspondence regarding the Draft Program Environmental Impact Report (EIR) for OVOV. As this was received during the project's 90-day California Environmental Quality Act review period, your comments with a written response from the City, will be incorporated into the Final EIR that will be reviewed by both the City's Planning Commission and City Council as part of its decision-making process. I encourage you to remain engaged in the public hearing process for the proposed OVOV General Plan and Draft Program EIR that will extend through the remainder of 2010 and into 2011. The next Planning Commission meeting is on Tuesday, November 16, 2010, 7:00 p.m., in the City Council Chambers. Primary topics of discussion that evening will be the draft Land Use and Circulation Elements.

I have provided the EIR consultant, the traffic engineering consultant and the City's Traffic Division with a copy of your email below. I will try to have a response to you prior to the preparation of the Final EIR, but I apologize that I cannot commit to a date-certain at this time.

11/6/2010

Sincerely,

Jason Smisko
Senior Planner
City of Santa Clarita
Planning Division
661.255.4306

From: M naoum [mailto:mikenaoum@prodigy.net]
Sent: Monday, October 25, 2010 6:31 PM
To: Jason Smisko
Cc: OVOV
Subject: OVOV Circulation Element Questions

Hi Jason:

I had the following questions regarding the Circulation Element EIR section and the Austin Foust Traffic Study. If possible, I'd like responses by November 5, 2010. If that will pose an issue, please let me know (310-801-3841).

Questions from the Impact Sciences EIR – Section 3.2

1. Page 3.2.2 concludes that “With implementation of mitigation measures, potential impacts on traffic and circulation would be less than significant.” Is this conclusion based on a comparison of the existing conditions versus OVOV or of the existing General Plan vs. OVOV. Also, is the conclusion based solely on the reduction in the number of “F” segments?
2. The EIR references the 2006 Transportation Development Plan which outlines a 58% service expansion in the “next several years”. How much has service and ridership expanded since the TDP?
3. What is the acceptable County of Los Angeles Level of Service outside of the OVOV planning area?
4. Table 3.2-12 shows ADT declining by only 1% but Vehicle Miles Traveled dropping by 15% and trip length’s being reduced by 1.9 miles under OVOV. What technical data and analysis is available to support this percentage change? Please supply if available.
5. What is the cost estimate and contribution rates per housing unit and sf of commercial/retail/industrial space to fund the improvements required under the Plan?
6. What is the LOS and Vehicle/Capacity calculations for the I-5 between the 5/14 interchange and the I-5/I405 interchange?

11/6/2010

7. Page 3.2.64 references 3 freeway segments operating at “LOS F” during peak periods. For what distance from each of the measuring points will there be an “F LOS”?
8. Page 3.2.67 states “Adherence to the proposed General Plan goals, objectives and policies would ensure that the planned improvements to the I-5 and SR 14 freeways would be implemented.” Please explain how. It strikes me that participating working with Caltrans is not the same as ensuring funding and building occurs as required for the Plan to work.
9. How are bus turnouts being accommodated on roads like Soledad that show no widening and likely don’t have additional ROW room?
10. Policy C5.1.5 – What percentage of required bus turnouts can be built given current ROW’s?
11. Policy C1.1.6 – How will facilities be funded?
12. What percentage of people use alternative means of transportation now (existing) versus planned under OVOV.

Austin Foust Traffic Study – Appendix 3.2 Questions

1. Page 1-7, Table 1-4 shows the City and County ICU calculation methodology. Which was used for analysis? What is the range of acceptable Saturation Flow Rates used in the industry?
2. Page 2-19 shows a 98% increase in trips but only a 68% increase in VMT’s. What technical analysis supports this quantification? Please provide.
3. Table 3-1 shows ROW width for a 6-8 lane major highway of between 108’ and 138’. Figure 3-1 shows a 6 lane major arterial highway detail. What item gets eliminated if the ROW is only 108’?

Thanks in advance!

Mike Naoum
mikenaoum@prodigy.net
310-801-3841

11/6/2010

Letter No. D22

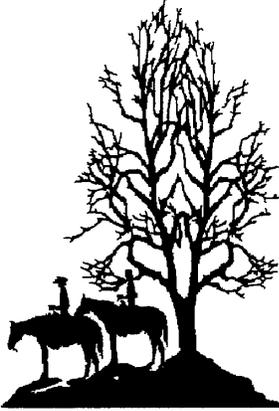
Letter from Mike Naoum, November 1, 2010

Response 1

The commenter noted that some comments and questions were provided to the Planning Commission two years ago and why weren't those comments provided in the EIR? The Draft Program EIR was prepared using all relevant comments addressing environmental issues made during the Notice of Preparation comment period. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter questioned that with traffic increases, why there is no corresponding increase in traffic on Sierra Highway, Sand Canyon and other alternative streets shown in the traffic plan. Per the Traffic Study: Traffic on Sierra Highway is projected to increase from 25,000 ADT (2010) to 34,000 ADT (OVOV), between Skyline Ranch Road and I-5. Traffic on Sand Canyon Road is projected to increase from 10,000 ADT (2010) to 20,000 ADT (OVOV), between Soledad Canyon Road and Placerita Canyon Road. Note: In both cases, these volumes are averages of the many individual links that comprise these segments.



**PLACERITA CANYON
PROPERTY OWNER'S ASSOCIATION**

PO Box 222204
Newhall, CA 91322
www.pcpoa.com

Santa Clarita City Hall
23920 Valencia Blvd. Suite 300
Valencia, CA 91355

November 10, 2010

Dear Planning Commission:

The PCPOA is formally requesting an extension to the Public Comment Period for the OVOV.

We believe that it is in the best interest of the community to have the time to truly understand and digest the voluminous proposal. We realize staff and the consultants have spent years to develop, review and revise this entire plan; it seems unreasonable the public (who will ultimately be affected the most) has a mere 90 days.

We ask that you add 90 days to this period.

We believe that Placerita Canyon is highly affected by the new development plan and we desire the time to truly understand all the issues that come with this new proposal.

The PCPOA Board has gone to great lengths to meet with the City Planners to help us identify and review the Placerita portion of this plan and we are working diligently to comprehend and understand the issues that are so important to the preservation of the Placerita Canyon Special Standards District.

The PCPOA hopes to work with the City for greater consistency and protections. Please allow Placerita and all neighborhoods in the Santa Clarita Valley the time to read and understand this important document.

Again, for a General Plan that will be in effect for the next 40+ years, 90 days is insignificant to making sure that One Valley One Vision is thoroughly discussed and understood before implemented.

Respectfully,

A handwritten signature in black ink, appearing to read 'Rob Hall', written over a white background.

Rob Hall

President PCPOA

cc: Planning Commissioners- Tim Burkhart, Dee Dee Jacobson, Dr. Dennis Ostrom, Bill Kennedy; Director of Community Development-Paul Brotzman, AICP Planning Manager-Lisa Webber, Associate Planner -James Chow, OVOV Project Manager-Jason Smisko

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Letter No. D23

Letter from Placerita Canyon Property Owner's Association,
November 10, 2010

Response 1

The commenter requested additional time to review the Draft Program EIR, and requested a 90 day continuance. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. It should be noted that the comment period was ultimately extended an additional 60 days for a total of 150 days and a total of five public hearings were held by the Planning Commission with additional hearing(s) to occur with the City Council.

Valerie Thomas

PO Box 220907
Newhall, CA 91322
(661) 755-3793 cell (661) 254-2406 fax

November 10, 2010

Santa Clarita Planning Commission
City Hall, Suite 300
23920 Valencia Blvd.
Santa Clarita, CA 91355

Dear Commissioners:

Please allow the Public Comment Period on OVOV to be extended 60 days. Most of the public must plod through the more than 8000 pages and assimilate what we can. That's more than 100 pages per day – an unreasonable task. Also, the time frame ends at the height of the holiday season.

1

Land Use Policy 1.2.6 deals with Placerita Canyon and gives pretty good lip service to maintaining our Special Standards District, a rural equestrian community. But other parts of the documents posit conflicting principles.

2

Placerita's Special Standards District is a geographic one extending from the Railroad tracks on the west to Sierra Highway on the east and ridge to ridge north and south. That means the Casden property lies within our Special Standards District. Most of the North Newhall area is designated MXN, Mixed Use Neighborhood. That allows up to 18 units per acre with building heights up to 50', scarcely compatible with a "rural equestrian neighborhood," and certainly not on a field designated as a "floodway" by FEMA.

3

The only access road shown aside from 13th Street is the Lyons to Dockweiler extension. The PUC and Metrolink are not comfortable with the present level of traffic for an at-grade crossing and will be less so with the adoption of the MXN. While it may be legal to adopt OVOV without appropriate linkages, it is questionable planning.

4

Page 1.0-8 of the Draft EIR lists 10 city-supported CEQA guidelines for thresholds of significance. Five are violated in the above planning process: Amount of grading, disturbance of "blue line" stream, ridgeline preservation and two traffic concerns which, if the MXN is adopted, will violate AB32, the Global Warming Solutions Act of 2006 which aims to reduce emission levels.

5

6

Placerita hopes to work with the City to get greater consistency and protections. Please allow Placerita and all neighborhoods the time to read and understand this document. Thank you.

7

Sincerely,
Valerie Thomas
Valerie Thomas

Letter No. D24

Letter from Valerie Thomas, November 10, 2010

Response 1

The commenter requests a continuation of the public comment period on the OVOV Draft Program EIR for 60 days given the amount of material contained within the document. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. It should be noted that the review period was extended an additional 60 days to a total of 150 days.

Response 2

The commenter stated that Land Use Policy 1.2.6 address the Placerita Canyon Special Standards District but other parts of the document are conflicting. The commenter gives no detail as to what parts of the document are conflicting or inconsistent with Land Use Policy 1.2.6, therefore no further response can be provided. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter is concerned with the Casden property land use designation of MXN which she does not believe to be reflective or compatible with a rural equestrian neighborhood nor a field designated as a floodway. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter questioned access in the Placertia Canyon area concerning the Lyons to Dockweiler extension. The commenter indicated that the PUC and Metrolink are not comfortable with the level of traffic at an at-grade crossing and will be less-so with the adoption of the MXN. The commenter felt that it would be questionable planning to adopt an MXN designation without appropriate linkages. The commenter is focusing comments on a specific project (North Newhall-see **Response 3** above)-and not the General Plan. Additionally, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter states that page 1.0-8 of the Draft Program EIR lists city-supported CEQA Guidelines. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter stated that five of the thresholds would be violated if the MXN land use designation is adopted on the North Newhall property (See **Response 3**, above). The commenter is referring to a specific development application and not the OVOV General Plan and these issues would be addressed as part of a proposed development. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter stated that she hoped that Placerita and all neighborhoods would have the time to read and understand the document. Please see **Response 1**, above.

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Comments and Questions submitted by Diane Trautman
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Draft Circulation Element

Page C-2: "By planning for a smooth-flowing transportation system, the potential of shorter trip lengths, and alternative travel modes, the Circulation Element encourages reduction of vehicle emissions as envisioned by the Conservation and Open Space Element."

Vehicle emission reduction will not be achieved with LOS D, E, and F at major intersections during peak periods.

Page C-2: "Policies to ensure that the circulation system is safe, such as provision of emergency access and maintenance of evacuation routes, are consistent with provisions of the Safety Element."

Emergency access to HMNMH is critical and that roadway will be heavily impacted by office building expansion by anticipated growth in the County west of I-5. Insufficient road improvements included in the hospital master plan will ensure gridlock at Orchard Village Road and McBean Parkway.

Page C-6: "The issue of safety for bicyclists and pedestrians is also a primary concern for developing a healthy and safe circulation system for the Valley, and the maps and policies of the circulation Element have been prepared to address safe pedestrian routes and bikeways."

Please see the bike route map and explain how safety is being improved by removing Class I bikeways.

Page C-7: "State statute requires that a congestion management program be developed, adopted, and updated biennially for every county that includes an urbanized area..."

This statement seems to indicate that roadways can be removed from or added to the Congestion Management Program. But in a December 8, 2009 email to me, Lisa Webber stated that Metro, claiming it would take a legislative act, declined to remove Magic Mountain Parkway/Railroad Avenue/Newhall Avenue (formerly SR 126) as one of four freeways/highways designated as CMP Roadways, although this roadway has been decommissioned as a state route. Can CMP Roadways be removed or added? What impact would removal have on the Magic Mountain-Newhall Avenue corridor? Will the City add the Cross Valley Connector to the CMP Roadways list?

Page C-8: "The 2004 CMP noted that both Interstate 5 and the Antelope Valley Freeway within the planning area demonstrate traditional commute patterns, with congestion flowing into Los Angeles and the San Fernando Valley in the morning and a reverse flow in the afternoon."

Does the Traffic Study include the number of commuters using SR14 to and from the Antelope Valley?

Page C-8: "The CMP indicates that all CMP roadways in the Santa Clarita Valley except SR-14 operate at a level of service D or better during a.m. and p.m. peak hours. Portions of the Antelope Valley Freeway are reported to operate at LOS E during a.m. and p.m. peak hours."

What are the traffic numbers on I-5? I think a lot of people would debate the notion that I-5 operates at LOS D or better.

1

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Page C-8: "However, the 2004 CMP indicates that both Interstate 5 and SR-14 traffic conditions have improved since the first CMP was completed in 1991, due to the completion of the widening projects on these routes."

By what measure were those freeways improved? To what degree?

Page C-8: "The Los Angeles County CMP allows a local jurisdiction to define acceptable levels of service up to LOS E."

Is the City proposing a standard of LOS E or better as an acceptable service level for the CMP roadways (including Sierra Highway and the former SR-126) only, or will the City propose that standard for other major highways?

Page C-8: "Various strategies are available to local jurisdictions to mitigate CMP traffic impacts, including... land use strategies such as locating higher density uses in proximity to public transit."

So the added benefit of keeping the Magic Mountain corridor in the CMP is justification for higher density at the Casden site?

Page C-9: "Newhall Pass has traditionally been one of the most congested regional corridors in Southern California and is in need of additional capacity improvements."

Does the Traffic Study identify any factors contributing to I-5 congestion such as the I-5/405 split? With the City work with other agencies to relieve that pressure in addition to making improvements in the Santa Clarita Valley? How many years did it take to complete I-5 improvements at Magic Mountain Parkway and at what cost? I just read that the start of future improvements to I-5 will be delayed until 2011. What is the total projected cost and the estimated timeline for those improvements.

1

Page C-10: "... policies have been included in the Circulation Element to ensure that local streets contribute to healthy, safe neighborhoods."

Where are the policies that ensure no cut-thru traffic or spill-over parking.

Page C-10: "Santa Clarita Parkway, a new north-south arterial that extends from SR-14 at Placerita Canyon Road to Bouquet Canyon Road."

What is the proposed alignment for this road?

Page C-11: The draft states that out of 100 "selected major segments of County and city roadway network" all but four are currently operating at LOS E or better. The four that are LOS E or worse include Soledad Canyon Road between Bouquet Canyon Road and Commuter Way, where there is a possibility that housing density/TOD might relieve significant traffic. The other three roadways will most likely not see a major decrease in traffic because there is no TOD planned for those areas. How will alternative modes and traffic management alleviate traffic congestion through the areas of Whites Canyon between Soledad Canyon Road and Pleasantdale Street, Lyons Avenue between Orchard Village Road and Newhall Avenue, and Newhall Avenue between Lyons Avenue and Main Street?

Page C-11: The traffic analysis that concludes circulation would be worse under the existing City and County General Plans than under OVOV appears to put a lot of faith in congestion relief from high-density transit oriented development because there don't appear to be any significant identified improvements to alternative modes, such as

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bicycle routes (in fact some existing routes are being removed) or pedestrian access (e.g. pedestrian bridges) across major highways.

Page C-13: How much of a reduction in traffic congestion have communities traditionally seen from traffic signalization measures?

Page C-13: Wouldn't cut-through traffic best be curtailed by creating sufficient arterials to meet traffic demand?

Page C-15: "The Countywide General Plan does not specify an acceptable level of service for the purpose of long-range planning; however, in conformance with the Congestion Management Program, the preferred maximum acceptable level of service on arterials roads (i.e. major, secondary, and limited secondary highways) within the planning area is LOS E. The City strives to achieve LOS D or better on highways to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility; therefore, a Level of Service F may be necessary at limited locations to implement the General Plan. In residential neighborhoods, the City and County desire conditions of LOS C or better."

Why should the City accept LOS D, E, or F? The current General Plan calls for improvements to improve any roads that reach LOS D.

1

Page C-18: Why is Vasquez Canyon Road to be reclassified from a secondary to a limited secondary highway and why is Skyline Ranch Road from Plum Canyon Road to Sierra Highway being reduced from a major to a secondary highway? The County has the massive Skyline Ranch development coming in from just west of eastern Soledad Canyon Road northerly to Vasquez and much of the area surrounding Vasquez Is deemed vacant and undeveloped. Since we don't have a map of the county plans for the area, are we to assume that development of this area of the next 20-50 years will cease? How can we be sure that the Area Plan will be consistent with our circulation element when it has yet to be released?

Page C-18: How will the reclassification of Pico Canyon Road from a planned secondary to a major highway affect students at Pico Canyon Elementary School? What safety measures are included in the County's Area Plan to protect students and their families from major highway traffic impacts?

Page C-20: In the Circulation Element, Newhall Avenue from 16th Street to Railroad Avenue is slated to become a secondary highway allowing up to 36,000 average daily trips (ADT). Is this road expected to operate at LOS E? From 16th Street to Lyons Avenue, Newhall Avenue goes through a quiet residential neighborhood passing Placerita Junior HS, Hart HS, and Newhall Elementary. What is the current width of the road in this area? Will it have to be widened to create 4-lanes to current requirements? Will eminent domain be required?

Page C-22: Eliminating the Class II bike lane between Plum Canyon Road and the future Santa Clarita Parkway (the entrance to Central Park) and from that road to Seco Canyon Road will not encourage alternative transportation modes that are considered

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primary to reducing vehicular traffic and thus road congestion and air quality and noise impacts. In contradiction, the bikeways map that follows later in the Element indicates that Bouquet is to have a Class I bikeway from Seco to approximately David Way. Please explain the discrepancy.

Page C-22: The City will have to exercise eminent domain over properties, including one recently approved by the Planning Commission for new development in order to widen from 6 to 8 lanes the area of Bouquet Canyon Road from Seco Canyon Road to Espuella Drive. What is the estimated cost of that expansion and the timeline since timelines are important to ensure that infrastructure keeps pace with development?

Page C-22: Restriping that section of Dockweiler Drive that extends from Leonard Tree Lane to Sierra Highway will not only eliminate street parking, but will bring secondary highway traffic, noise, and pollution to within 10 feet of residents' bedroom windows. Are the Planning Commission and City Council telling the residents of that community that their neighborhood is expendable?

Page C-25: Will widening of Orchard Village Road from 4 to 6 lanes require the removal of all street trees? Will sidewalks be created?

Page C-26: With regards to building several new bridges over the Santa Clara River: what is the cost in today's dollars for building a bridge of this nature? What is the cost for widening bridges? What is the cost per mile for building major and secondary highways? What portion of these costs do Bridge & Thoroughfare fees cover? What portions does state financing cover? Federal funding? How many years does it take to secure funding, plan, and build each?

Page C-26: How will the removal of the existing Class II bike lane from River Circle to SR-14 encourage alternative modes of transportation and relieve traffic congestion?

Page C-27: How will the removal of the existing Class II bike lane from Wiley Canyon Road between Railroad Avenue and Lyons Avenue encourage alternative modes of transportation and relieve traffic congestion?

Page C-27: Five new bridges are proposed to cross the Santa Clara River. Seven bridge widening projects are required for buildout. A total of 94 projects are required for buildout. What is the total estimated cost in today's dollars for those improvements?

Page C-27: How will removal of the existing Class II bike lane on Stevenson Ranch Parkway from The Old Road to Pico Canyon Road encourage alternative modes of transportation?

Page C-35: If trucks will be allowed to use all major and secondary highways, Newhall Avenue from 16th Street to Railroad Avenue will face regular truck traffic in addition to losing significant low-income housing to eminent domain?

Page C-35: Reliable sources in planning indicate that new development never pays the full cost of road development and improvement. What percentage of funding for new and improved roads actually comes from developers? What comes from other sources?

1

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Page C-36: The draft states that "no new freeways or arterial highways are planned as part of this Circulation Element other than those planned for in the prior Element."

There are several highways identified on the new area plan for the area west of I-5 that were not identified in the original General Plan.

Page C-36: Following this statement, the draft suggests that other methods and policies will ensure more efficient use of existing roadways, yet the methods suggested under Travel Demand Management, are strategies with no identified means of ensuring reduced vehicular traffic. What specific policies will be enacted to ensure that traffic management methods will reduce traffic congestion?

Page C-38: "The most cost-effective way to achieve congestion relief on surface streets will be provision of alternative transportation modes that are convenient, safe, efficient, pleasant and cost effective...." Hundreds of millions of dollars will be needed to expand upon and build new roadways. What is the anticipated investment in alternative transportation modes, including buses, bike lanes, pedestrian walkways and bridges, etc?

Page C-39: With regards to Metrolink service, this section states: "A need has been identified for a future fourth station on the east side of the Valley."

How was that need ascertained? Is it a matter of anticipated growth in Metrolink ridership? Is a fourth station needed or is the Via Princess station to be relocated to the proposed Vista Canyon Ranch development?

1

Page C-41: What is the current feasibility of the Orangleline Mag-Lev as compared to the High-Speed Rail project that is proposed to run through, but not stop in Santa Clarita?

Page C-45: The following statement should be altered to reflect the reality that Placerita Canyon Road is a private road, not a through street. "In some areas, such as Placerita Canyon and Calgrove Boulevard, gates have been installed across collector streets, precluding transit service in adjacent neighborhoods."

Page C-47: What is the point in identifying a surface street as a "bike route which offers no protection to the cyclist, other than to be able to display some connection between otherwise unconnected bikeways?"

Page C-48: From what source did the consultant derive the notion that experienced cyclists "generally prefer to ride within the travel lanes of the right-of-way..."? I have heard experienced riders ask for at least Class II bike lanes, if not Class I bikeways.

Page C-48: "Where gaps in the system were identified, city and county planners are encouraged to consider projects to complete the bikeway network."

According to Table C-3 (starting on page C-21, the draft Circulation Element proposes to remove at least four Class II bike lanes. And yet, Exhibit C-5 (Bikeway Master Plan) shows three of those areas with proposed Class I bikeways. Which is it? If the exhibit is correct, how will those bikeways be created?

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Page C-49: "The city's Non-Motorized Transportation Plan, adopted in June 2008, addressed these issues through development of connected, safe, and convenient routes for cyclists and pedestrians." If this and the statement that follows later in that paragraph (that a primary goal of this element is to encourage future decreases in motor vehicle use by making bicycling and walking easier, safer, and more enjoyable) are true, why is the City proposing to remove bikeways and leave other high traffic arterials without safe bikeways?

Page C-52: The City had an opportunity to create a pedestrian bridge over the six-lane Newhall Ranch Road in the River Village project, a bridge that could significantly reduce traffic to and from Emblem Elementary School; but did not chose to alter the project in favor of traffic reduction and safety. The reason that was given was that it was impractical, but there did not appear to be a serious consideration of options. Why should the community trust that serious consideration will be given to pedestrian bridges and the traffic congestion relief they offer as the City creates new arterials and widens existing roads?

Page C-54: Proposed roadway improvements for Orchard Village Road and Lyons Avenue, among others are being designed to maximize vehicle capacity, not to ensure pedestrian and bicyclist use. How will the City ensure that major roadways don't eliminate the connectivity that is being promoted throughout this document?

1

Page C-58: This list of policies and objectives includes maintaining acceptable levels of service on streets and at intersections. Did the City Council or the Planning Commission vote to increase the acceptable level from LOS C to LOS E or LOS F? If not, who determined that E and F are going to be acceptable?

Pages C-59 & 60: Again, what specific steps with the City take to increase non-motorized travel within the City? In what areas of the City will right-of-way acquisitions be targeted to accommodate bicycles, pedestrians, and bus turnouts?

Page C-62: Will the City develop a policy for developer contributions to infrastructure to accommodate bicyclists and pedestrians?

Page C-63: Policy C.2.2.4: "Strive to maintain a Level of Service (LOS) D or better on most roadway segments and intersections to the extent practical; in some locations, a LOS E may be acceptable, or LOS F may be necessary, for limited durations during peak traffic periods."

I have lived in Santa Clarita for more than 17 years and during those years, the community has complained over and over again about traffic congestion, especially during peak periods. Why should the community have to settle for gridlock and longer commutes as infrastructure (including water and solid waste) fails to meet the needs of existing and new residents? How will you communicate to residents that the City and Valley have to expand to almost half a million residents even if the quality of life is destroyed in the process?

Page C-65: Policy C-2.5.2 If emergency access and safety are serious concerns, why should the City not require two access points for all subdivisions, with no exceptions?

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Page C-65: Policy C-3.1.2: "Promote home-based businesses and live-work units as a means of reducing home-to-work trips."

Will the City create an ordinance to allow home-based businesses to park their vehicles in front of their homes or within their neighborhoods, which is now usually in violation of HOA rules?

Page C-67: Policy C-3.3.7: "Create parking benefit districts which invest meter revenues in pedestrian infrastructure and other public amenities wherever feasible."

Where is the City likely to install parking meters?

1

Page C-67: What sort of incentives will be offered to developers to create transit-oriented residential units and commercial units? Will there be an affordable component to this housing in these developments? Or will affordable housing be secondary to the issue of density near transit?

Page C-73: Where alternative parking options and flexible standards are considered, will the city create additional policies to help alleviate spill-over parking in existing residential neighborhoods?

Circulation DEIR

Page 3.2-1: Is the claim that the proposed General Plan will result in reduced traffic when compared to the current General Plan based on proposals for high-density transit-oriented development and improvements in multimodal transit?

2

Page 3.2-15: Why is Seco Canyon Road, a secondary arterial roadway not included in the Existing Level of Service Summary — Arterial Roadways (Table 3.2-4)? What other arterial roadways have not been included in this summary and why have these roads not been included?

3

Page 3.2-31: What areas have been determined as high-density urban areas subject to LOS E or worse?

4

Page 3.2-33: The original General Plan estimated valleywide buildout at 98,000 housing units and a population of 267,000 people. Population and housing projections were based on the averaging of densities over the entire planning area at midpoint of the General Plan density ranges (except in the Valley Center area) with average population of 2.7 per household.

5

This page and the next tell us that, for the purposes of analyzing project impacts (and therefore comparing the proposed project to alternatives), the City has chosen to compare the Existing Plan Buildout with the Proposed Plan Buildout, rather than compare the Existing (2004) units with the Proposed Plan Buildout. Curiously, the number of units in the Existing Plan Buildout in Table 3.2-7 is a number within the range of the 150,000-155,000 units projected in the Land Use section of the OVOV General Plan and Area Plan and yet, the number in the Proposed Plan Buildout in that same Table is 149,074 — lower than the projected units in the Land Use Element.

6

How was the Existing Plan Buildout calculated? Does it include excess units created as a result of General Plan Amendments? Does it include units approved, but

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not built? Does it include proposed units not yet evaluated? Why does the number of units attributed to the Existing General Plan Buildout exceed the number projected in the Proposed Plan Buildout even though the projected population growth represents a 45% increase over the original General Plan population? 7

Page 3.2-34: With a projected population of 460,000-485,000, are reduced trip ends projected based on a certain percentage of mass transit ridership? 8

Page 3.2-38: What will happen if mass transit ridership and other alternative modes of transportation don't reduce vehicular traffic? Will the 10 identified roadway segments operate at LOS F? What other roadways would become similarly impacted? 9

Page 3.2-46: On what assumptions does the DEIR base it's conclusion that Newhall Avenue north of Lyons will expand to a capacity of 36,000 ADT, but drop from a volume of 2,000 under the Current General and Area Plans to 1,000 under OVOV? The City will be opening a throughway from 16th Street to Railroad Avenue, but expecting less traffic? What is the current traffic count past the 3 schools on this section of Newhall Avenue? 10

Page 3.2-59: How would fair share or in-lieu contributions ensure that roads are built when needed? How many years did it take the City to gather the necessary funding to build the cross-valley connector? 11

Page 3.2-59: Promotion of trip-reduction measures is not the same as requiring them. What policies will be created to require trip reduction from a given project in order for a development to be approved? What conditions would trigger a project denial if the developer cannot agree to sufficient project improvements? 12

Page 3.2-62: What conditions would have to exist in order to require congestion relief in a project whether "feasible" to the developer's bottom line or not? 13

Page 3.2-63: "In conformance with the Los Angeles County CMP, the maximum acceptable level of service on CMP roadways within the OVOV Planning Area is LOS E." The CMP allows LOS up to E, but doesn't require it. 14

Page 3.2-76: If the City establishes "benefit districts" where street parking is metered, will the City also develop a policy for parking restrictions and applicable signage on residential streets adjacent to the metered parking areas to protect parking for existing residents? 15

Letter No. D25

Letter from Diane Trautman, November 12, 2010

Response 1

The comment raises issues pertaining to the Circulation Element of the General Plan that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter asks of the reduction of OVOV trips when compared to the existing General Plan took into consideration high-density transit-oriented development and improvements in multimodal transit. The statement referenced by the commenter refers to trip traffic. The statement is partially correct. The reduced traffic is from the implementation of policies for increased density, transit-oriented development but not necessarily from multi-modal transit.

Response 3

The commenter asked why Seco Canyon Road was not included in the Existing Level of Service Summary. What other arterial roadways weren't included—and why weren't they? There were no existing up-to-date traffic counts available for Seco Canyon Road at the time the traffic study was prepared. Other arterials not in Table 3.2-4 include Haskell Canyon Road, Plum Canyon Road, Calgrove Boulevard, Tourney Road, Via Princessa. None of these roadways had recent traffic counts at the time the study was prepared. Table 3.2-4 was not intended to be an exhaustive list of every arterial roadway in the Santa Clarita Valley, but rather, a representative sample based on available traffic counts.

Response 4

The commenter asks what areas are referred to as high-density urban areas. In order to respond fully, the entire quotation referred to in the comment is necessary so that the response is not taken out of context: "The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds." Areas of higher density within the City of Santa Clarita include the Town Center where pedestrian mobility is key to a densely populated area.

Response 5

The commenter provided information to the City's existing General Plan having midpoint density ranges. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter states that the EIR has chosen to compare the existing General Plan Buildout to the proposed General Plan Buildout rather than comparison of Existing condition with the Proposed Plan Buildout. The commenter is incorrect. Table 3.2-6 Trip Generation-Existing vs OVOV Buildout compares existing conditions with OVOV Buildout. Table 3.2-7 Trip Generation –Existing General Plan and County Area Plan vs OVOV Buildout for comparison purposes only. Comments were made during the Notice of Preparation process for the EIR that they were questioning a need for a new EIR. A comparison table such as Table 3.2-7 provides quantitative information concerning both plans.

The commenter stated that numbers used in Table 3.2-7 for the Existing Plan Buildout are within the range of numbers provided within the Land Use Section but the number provides within the Proposed Plan buildout is lower than the projected units in the Land Use Element. We do not know what specific page or reference to the Land Use Element is made, consequently no further response can be provided.

Response 7

The commenter is asking how the Existing Buildout Plan was calculated and if it included units created as a part of General Plan Amendments. The Existing General Plan buildout numbers were calculated based upon TAZ areas. This range of numbers included unit approved but not yet built and proposed units not yet evaluated. Page 33 of the EIR for the existing General Plan provides a projected buildout population range of 228,774 to 521,977 persons. The number of units attributed to the Existing General Plan Buildout exceed the projected OVOV numbers even with a 45% project increase because of the following factors: there have been a number of General Plan Amendments since the adoption of the 1991 General Plan, there have been a number of annexations since adoption of the 1991 General Plan, the OVOV Plan includes a larger Planning Area when compared to the 1991 General Plan and the OVOV Plan has technology such as GIS which allows for a more definitive calculation of area and figures when compared to the 1991 Plan.

Response 8

The commenter wanted to know if reduced trip ends projected are based on a certain percentage of mass transit ridership. The traffic model assumed no change in transit ridership percentage between the base year model (2004) and the future year model. This is a conservative assumption. There is actually a small increase in trip ends between Current General Plan Buildout and Proposed OVOV Buildout, and a small decrease in total trips between Current General Plan Buildout and Proposed OVOV Buildout. This is due to changes in travel patterns associated with the land use changes.

Response 9

The commenter asked what will happen if mass transit and other alternatives modes of transportation don't reduce vehicular traffic. The mere fact that commenters will be using mass transit alternatives reduces vehicular traffic. No further response is necessary.

Response 10

The commenter wanted to know if the 10 identified roadway segments operated at LOS F and what other roadways would become similarly impacted. Certainly, if the amount of transit ridership and ride sharing in the Santa Clarita Valley decreases, then there will be an increase in single-occupant vehicles on the roadway network, and therefore, a worsening in level of service. The degree of increased traffic would be a function of the specific change in transit ridership and ride sharing. Without additional model runs containing specific changes to transit use assumptions, it is not possible to forecast LOS changes on specific roadway segments.

Response 11

The commenter is questioning Table 3.2-9 which shows a capacity of 36,000 ADT but drops from a volume of 2,000 under the current General Plan and Area Plan and to 1,000 under OVOV. Figures 3.2-7 and 3.2-8 both show this segment of Newhall Avenue with 7,000 ADT.

Response 12

The commenter questioned that the City will be opening a throughway from 16th Street to Railroad Avenue but with less traffic?

Referring to Figures 3.2-7 and 3.2-8, the 16th Street connection to Railroad Avenue is not shown in either figure. The issue of less traffic on 16th Street, however, becomes irrelevant based on (11) above.

Response 13

The commenter asked for the current traffic counts past the three schools on this section of Newhall Avenue. There are no available traffic counts for this section of Newhall Avenue.

Response 14

The commenter asked how fair share or in-lieu contributions ensure that roadways will be built when needed. There are several roadways that have been built with Bridge and Thoroughfare fees (B&T) which include funding with fair share or in-lieu fees. These roadways include: The Cross Valley Connector, which is a combination of Newhall Ranch Road and Golden Valley Road, was built with B&T funds (in addition to developer contributions and grant funds).

The Golden Valley Road bridge over SR-14 will be widened/improved with B&T funds (in design stage); Copper Hill Drive, and Plum Canyon Road.

Also, many of the City and County arterials are built by developers, but indirectly the B&T Districts make this possible, because the developers get B&T credits for the roads they build.

Response 15

The commenter asked how many years it took the City to secure funding for the Cross-Valley Connector. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 16

The commenter stated that the promotion of trip-reduction measures is not the same as requiring them. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 17

The commenter asked what policies will be created to require trip reduction from a given project in order for a development to be approved. All Transportation and Circulation policies have been proposed and are in the Circulation Element. No further response is required.

Response 18

The commenter asked what conditions would trigger a project denial if the developer cannot agree to project improvements. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 19

The commenter questions what conditions would have to exist in order to require congestion relief whether feasible or not to a developers bottom line. The commenter is referring to

Policy C 3.1.1 In evaluating new development projects, require trip reduction measures as feasible to relieve congestion and reduce air pollution from vehicle emissions.

As the policy states as new development is evaluated, trip reduction measures will also be evaluated in conjunction with their feasibility. Because each development is different in size, location and use, not all measures are feasible or appropriate for every development. Consequently the Policy has been written to take into consideration the variables for each development. There is no one answer for determination of feasibility.

Response 20

The commenter states that the CMP allows LOS up to E but doesn't require it. And references a sentence on page 3.2-63 regarding CMP and LOS E. The commenters statement is acknowledged but it does not change the sentence referenced. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 21

The commenter asked if the City establishes a benefits district will the City also develop a policy for parking restrictions and applicable signage on residential streets adjacent to the metered parking areas. The policy referred to by the commenter states:

Policy C 3.3.7: Create parking benefit districts, which invest meter revenues in pedestrian infrastructure and other public amenities wherever feasible.

At such time that the parking benefits district is created parking restrictions and signage will be investigated. Until such time, any assumptions regarding the districts would be speculative. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: Maggi Sanchez
Sent: Friday, November 12, 2010 10:58 AM
To: Bill Kennedy; Dee Dee Jacobson; Dennis Ostrom; Tim Burkhart
Cc: Jeff Hogan; Jason Smisko
Subject: FW: Questions for Planning Committe Members - Upcoming Meeting re: OVOV

From: M naoum [mailto:mikenaoum@prodigy.net]
Sent: Thursday, November 11, 2010 7:16 AM
To: Maggi Sanchez
Subject: Questions for Planning Committe Members - Upcoming Meeting re: OVOV

Hi Maggie:

Can you pass these questions on to the Planning Commission members prior to this coming Tuesday's meeting?

1

The 1997 General Plan called for a "C" level of service. Current level of service for intersections averages a "B". It appears that under the new plan, an "E" level of service is acceptable to City Staff. What approved policy changed this desired Level of Service?

2

How does the EIR consultant conclude that there is no significant impact when the level of service for existing major intersections drops to an average of a "D"?

3

SR-14 LOS ratings are between "F" and "E" during peak periods under OVOV with all planned improvements built versus "B" and "C" today. With these failing levels of service, there is no corresponding increase in traffic on Sierra Highway, Sand Canyon, and other alternative streets shown in the traffic plan. Drivers take these alternate roads today under moderate and high traffic loads. Why is there not an increase not under OVOV when traffic on the 14 will be gridlocked?

4

The EIR conclusion appears to be based on a comparison to the current plan rather than existing conditions. Why is this appropriate?

5

Vehicle miles traveled is reduced by 15% and trip length is reduced by 1.9 miles under OVOV. How are these reductions determined?

6

Why aren't village locations closer to large existing job centers?

7

Why isn't the Newhall Pass level of service mentioned or addressed? Isn't this key to getting residents to work and workers to the new jobs in the City?

8

What is the budget for the buildout plan and how will it be funded?

9

What happens to levels of service if the buildout plan is only partially implemented?

10

Is the City serious about using eminent domain when it will be necessary to implement the traffic

11

11/15/2010

11

plan?

Thanks.

Mike Naoum
27301 Eaglehelm Dr.
Santa Clarita 91387

11/15/2010

Letter No. D26

Letter from Mike Naoum, November 11, 2010

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment questioned why the Level of Service has changed to LOS E from LOS C in the 1997 General Plan. The Level of Service standards did not change with the OVOV Plan. As is stated in Section 3.2 Transportation and Circulation, page 3.2-31 the City adopted thresholds of significance discuss the applicable Level of Service thresholds:

The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds.

Response 3

The commenter wanted to know how the Draft EIR concluded that there is no significant impact when the level of service for existing major intersections drops to an average of "D." As stated in Section 3.2 Transportation and Circulation, page 3.2-31 and 32, analysis of transportation and circulation impacts were based on the following thresholds of significance:

In order to assist in determining whether a project will have a significant effect on the environment, the California Environmental Quality Act (CEQA) Guidelines, Appendix G identifies criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Potentially significant impacts on transportation and circulation would occur if the proposed General Plan would:

- *cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to-capacity ratio on roads, or congestion at intersections);*
- *exceed a level of service standard established by the County congestion management agency for designated roads or highways;*
- *result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*
- *result in inadequate emergency access;*
- *generate a parking demand that exceeds municipal code–required parking capacity.*
- *conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks); and/or*

- *cause a hazard or barrier for pedestrians or bicyclists.*

The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds.

According to the City, the project would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system if the project would:

- increase the V/C ratio or ICU by at least one percentage point (0.01) at any location where the final V/C ratio or ICU is 0.91 or greater (LOS E or F); or
- increase the V/C ratio or ICU by at least two percentage points (0.02) at any location where the final V/C ratio or ICU is between 0.81 and 0.90 (LOS D).

The above City's thresholds are project-specific thresholds and would be applicable to projects as the City of Santa Clarita builds out under the proposed General Plan. The City does not consider averaging of LOS a threshold of significance.

Response 4

The commenter questioned that with traffic increases, why there is no corresponding increase in traffic on Sierra Highway, Sand Canyon and other alternative streets shown in the traffic plan. Per the Traffic Study: Traffic on Sierra Highway is projected to increase from 25,000 ADT (2010) to 34,000 ADT (OVOV), between Skyline Ranch Road and I-5. Traffic on Sand Canyon Road is projected to increase from 10,000 ADT (2010) to 20,000 ADT (OVOV), between Soledad Canyon Road and Placerita Canyon Road. Note: In both cases, these volumes are averages of the many individual links that comprise these segments.

Response 5

The commenter stated that the EIR conclusion appears to be based on a comparison to the current plan rather than the existing plan and questioned the appropriateness of this approach. The comment is incorrect. Baseline to project analysis can be found in Table 3.2-6 Trip Generation – Existing vs. OVOV Buildout, Table 3.2-8 ADT V/C and LOS – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways), Table 3.2-10 ICU And LOS Summary for Principal Intersections – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways). Existing Plan to OVOV Plan comparison was provided to assist the public as to acknowledge the difference between the Plans which was an issue discussed during the Notice of Preparation process.

Response 6

The commenter requested the technical data and analysis necessary to support vehicle miles traveled figures. As stated in Section 3.2 Transportation and Circulation, page 3.2-58: “The traffic forecasting process utilized by the SCVCTM also calculates vehicle miles travelled (VMT) based on the geographical placement of land uses within an area and the number of trips they generate.” The vehicle miles traveled is a function of the Santa Clarita Valley Traffic Model.

Response 7

The comment raises issues pertaining to the General Plan that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenter asked why the Newhall Pass level of service is not mentioned or addressed, as isn't this the key to getting residents to work in the City. To the best of the City's knowledge there is no Newhall Pass level of service. Consequently no further discussion can be provided. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 9

The comment raises economic issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The comment questioned what would happen to levels of service if the buildout plan is only partially implemented. There are so many variables in responding to the question that not only is it impossible to answer but any answer would also be speculative. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter asked if the City was serious about using eminent domain when necessary to implement the traffic plan. As of this time, the City has no plans to implement eminent domain to implement traffic improvements. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Jason Smisko

From: OVOV [OVOV@santa-clarita.com]
Sent: Saturday, December 18, 2010 2:39 PM
To: Jason Smisko
Subject: FW: Elsmere Canyon

From: stanw@earthlink.net[SMTP:STANW@EARTHLINK.NET]
Sent: Saturday, December 18, 2010 2:38:11 PM
To: OVOV
Subject: Elsmere Canyon
Auto forwarded by a Rule

Sirs:

Based on my own research into many facets of Elsmere Canyon (see elsmerecanyon.com), I have to protest certain statements in your OVOV document:

1

CO-53 Draft September 2010
Elsmere Canyon has served as a popular film site for western movies.

There is absolutely no evidence that any movie was ever filmed in Elsmere Canyon. How you can say that it was a "popular site" is beyond me. A search through the Internet Movie Database locations contains no mention of Elsmere Canyon. However, much filming was done nearby in Placerita Canyon at the Monogram Ranch which would become Gene Autry's Melody Ranch. (see http://www.elsmerecanyon.com/movies/movies.htm)

2

CO-43
La Puerta a cultural or historical site

3

CO-50
La Puerta - The "door of the old road" is located in the southwestern portion of Elsmere Canyon. Identified as both a natural physical and visual resource, La Puerta also figures as a significant anthropological, military, religious, and cultural resource in the planning area. La Puerta served as a geographic landmark for local Native Americans, Spanish explorers, and American pioneers crossing the Valley.

La Puerta was supposedly a ridge of rock partly interfering with traffic on the Old Road. However, there is no evidence whatsoever that the Old Road, and hence La Puerta, was ever in Elsmere Canyon. All old maps show the Old Road running outside of Elsmere Canyon, parallel to and now partially under Highway 14. The geological feature in Elsmere Canyon that has been called La Puerta is a fork in the creek. La Puerta was in the southeast corner of Rancho San Francisco, which is now under Highway 14. It was stated that by placing a barrier here cattle could be stopped from crossing back and forth between the Santa Clarita Valley and the San Fernando Valley. Anyone that has ever hiked to the "La Puerta" fork in Elsmere Canyon knows how ludicrous that statement is. If you hike up either fork, you would be

4

1/10/2011

stopped by waterfalls and, even if you got over them, you would not be in the San Fernando Valley or even close to it. As for being a significant anything, there are almost no original documents that found it important enough to even mention. Plus, no anthropological, military, religious, or cultural artifact has ever been found there, and yet you call it a "significant" resource and a "cultural or historical site". (see <http://www.elsmerecanyon.com/lapuerta/lapuerta.htm> and <http://www.stan-walker.com/elsmerecanyon/tunnelarea/passes/oldroad/oldroad.htm>)

4

Most of this mis-information was created by Jerry Reynolds, then curator of the Santa Clarita Valley Historical Society, who tried to get this fork designated as a State of California Historical Landmark in 1993 as a way to block the creation of a dump in Elsmere Canyon. I checked most of his sources (I have a copy of the application) and none substantiate any of the claims he made about La Puerta (or movies filmed in the canyon).

5

These points are, of course, minor glitches in the OVOV document, but, as someone who is very familiar with Elsmere Canyon, it bothers me to read them again and again, not just here, as if they are facts.

6

Regards,
Stan Walker

1/10/2011

Letter No. D27

Letter from Stan Walker, December 18, 2010

Response 1

This comment is an introduction to comments that follow. The responses to comments will be included in the Final EIR, with all other comments to the OVOV EIR. No further response is required.

Response 2

The commenter stated that he had concern regarding statements concerning Elsmere Canyon in the Conservation and Open Space Element. The City cultivated information to prepare the historical resources section from existing materials and under the guidance and support from the Santa Clarita Valley Historical Society. The City welcomes this additional historical perspective provided from Mr. Walker to add to the FEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter referenced La Puerta as a cultural or historical site in the Conservation and Open Space Element. The City cultivated information to prepare the historical resources section from existing materials and under the guidance and support from the Santa Clarita Valley Historical Society. The City welcomes this additional historical perspective provided from Mr. Walker to add to the FEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter provided information to the Conservation and Open Space Element concerning La Puerta. The City cultivated information to prepare the historical resources section from existing materials and under the guidance and support from the Santa Clarita Valley Historical Society. The City welcomes this additional historical perspective provided from Mr. Walker to add to the FEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter stated that there are conflicting claims regarding La Puerta. The City cultivated information to prepare the historical resources section from existing materials and under the guidance and support from the Santa Clarita Valley Historical Society. The City welcomes this additional historical perspective provided from Mr. Walker to add to the FEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter stated that he is bothered about minor glitches in the OVOV General Plan document concerning Elsmere Canyon. The City welcomes this additional historical perspective provided from Mr. Walker to add to the FEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Valerie Thomas

PO Box 220907
Newhall, CA 91322
(661) 755-3793 cell (661) 254-2406 fax

RECEIVED
PLANNING DIVISION

JAN 07 2011

CITY OF SANTA CLARITA

January 7, 2011

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Blvd., Suite 300
Santa Clarita, CA 91355

Re: Draft Environmental Impact Report, OVOV General Plan Update

Dear Mr. Smisko

City and County staffs have been working on One Valley One Vision for the better part of a decade. Shortly after the County's version was made public, it was withdrawn because of concerns raised by the California Attorney General's office.

1

Santa Clarita's version underwent similar revisions.

The public had virtually no input in these revisions. Therefore I ask for a detailed comparison of both sets of City and County documents as well as an overlay showing the changes in current versus proposed Land Use designations prior to the close of the Public Comment Period.

2

Sincerely,
Valerie Thomas
Valerie Thomas

Cc: Los Angeles County Supervisors
Santa Clarita City Council
Santa Clarita Planning Commission
City Manager Ken Pulskamp
Santa Clarita Planning Director, Lisa Webber
Mr. Paul Brotzman

Letter No. D28

Letter from Valerie Thomas, January 7, 2011

Response 1

The comment provided background information concerning the City and County OVOV Draft EIR progress. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter stated that the public had no input into these revised and requested a detailed comparison of both County and City documents as well as an overlay showing the changes in current versus proposed Land Use changes prior to the close of the public comment period. The requested comparison was of the County's Draft Santa Clarita Valley Area Plan, which was released in September 2009, to the County's Revised Draft Santa Clarita Valley Area Plan, which was released in November 2010. Please be advised that these documents are available on the Department of Regional Planning's Web Site, as follows:

- *Chart with differences between goals, objectives, and policies:*
http://planning.lacounty.gov/assets/upl/project/ovov_chart_county-goals.pdf
- *Chart with differences between land use designation descriptions:*
http://planning.lacounty.gov/assets/upl/project/ovov_chart_county-plans.pdf

The letter also requests documents that compare the City's Draft General Plan, which was released in September 2010, to the County's Revised Draft Santa Clarita Valley Area Plan, which was released in November 2010. Please be advised that these documents are available on the Department of Regional Planning's Web Site, as follows:

- *Chart with differences between goals, objectives, and policies:* http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-goals.pdf
- *Chart with differences between land use designation descriptions:*
http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-plans.pdf

A map showing the changes in land use designations can be found on OVOV-NET, an Interactive Geographic Information System (GIS) that includes the County's existing and proposed land use designations, as well as other geographic information, may be accessed at <http://planning.lacounty.gov/ovovnet>.

In addition, Section 3.1 of the County's Revised Draft Environmental Impact Report (RDEIR) includes a land use change map (Figure 3.1-3). Section 3.1 of the RDEIR is available on the Department of Regional Planning's Web Site:

http://planning.lacounty.gov/assets/upl/project/ovov_2010-eir-3-1-land-use-111710.pdf

The aforementioned documents, as well as other documents related to the Santa Clarita Valley Area Plan Update, are available on the Department of Regional Planning's Web Site at <http://planning.lacounty.gov/ovov>. The documents are also available at the County libraries in Acton/Agua Dulce, Castaic, Newhall, and Valencia.

SCOPE

Santa Clarita Organization for Planning and the Environment

TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY

POST OFFICE BOX 1182, SANTA CLARITA, CA 91386



1-7-11

Attn: Mr. Mitch Glaser
LA County Dept. of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

Mr. Jason Smisko
City of Santa Clarita
23920 Valencia blvd.
Santa Clarita, CA 91355

Re: OVOV City General Plan and County Area Plan Update

Dear Sirs:

After discussions with various leaders in the community about this plan and process, we agreed that the public process for these important planning documents seems to be flawed.

1

While the City claims to have been working on this plan for the last ten years, the lengthy hiatus in their chronology and recent passage of new planning laws makes it obvious that it was not a continuous process and early scoping meetings were perhaps not even applicable to the current effort. The numerous public outreach reach presentations by the City seem to have been merely a PowerPoint presentation of the City's plan, not an effort to gather input or hear public comment.

2

3

We understand and agree that the general plans for the Santa Clarita Valley area are sorely out of date. New planning concepts, tools and laws have become available and should be utilized to help inform and improve the planning process. A joint plan makes sense given the well-defined geographic area.

4

However, this is not a joint plan. It is two separate plans with environmental documents totally over 15,000 pages each. Hearings are not being held jointly and mitigation requirements proposed for the plan are not jointly enforceable.

5

These separate processes raise huge problems in our eyes for the enforceability of the goals your agencies are proposing. But perhaps even more important, it is very confusing to the public.

6

We are therefore writing to request that before these plans move forward, you agencies provide us and other members of the public that may request it a comparison of the two plans and the environmental documents including:

7

1. A list of consensus points in all areas of the plans
2. A list of areas where the two plans differ.

- 3. How different laws that cover different jurisdictions will be managed (for instance, will the County Development Monitoring System and Significant Ecological area rules continue to apply in County areas of Santa Clarita?)
- 4. How will the plans be jointly enforceable?

7

Additionally, most EIR's have a section entitled something like "Regulatory Setting" that describes the various federal, state and local permitting laws. The OVOV EIRs do not have such a section. Thus the public is left in the dark as to the specific requirements of, for instance, AB32 and SB375, as well as other State and Federal permitting processes such as storm water requirements, water supply disclosures, and endangered species protection.

8

We therefore request that at a minimum, a summary of the requirements of AB32 and SB375 and how they relate to this plan be provided to the interested public, including our organization, prior to the close of the commenting period.

9

We have noted that both entities seem to be rushing to approve large projects that would not comply with the precepts of these plans (reduced density in outlying areas, increased density in the City center). The County recently approved the 1260 Skyline Ranch area in a hard to reach outlying area that will create massive traffic problems. Tracts in Newhall Ranch seem to be moving forward without requirements for commuter train right of ways. The City is rushing to annex additional areas of the outlying Tesoro del Valle project to enable development there. Applications are being "grandfathered" in and density bonuses and increases are being granted to those developers who attend hearings.

10

The population increase predicted by the earlier plans has not yet been reached and the housing market continues in a downturn from which it may not recover for many years into the future, due in part to over-building in this area. There is certainly time to pause in order to offer a plan that everyone understands and that is enforceable.

11

We therefore request that you 1) provide the information listed above and extend the comment period an appropriate amount of time to allow review of the requested information; 2) that you place a moratorium on new applications and approvals until the plan is complete; 3) that the two plans coordinate their dates and processes so that the comment periods end at the same time and that some joint meetings are held.

12

13

14

Thank you in advance for your consideration of these requests.

15

Sincerely,

Lynne Plambeck
President

Letter No. D29

Letter from SCOPE, January 21, 2011

Response 1

The commenter stated that she believed the public process for the OVOV planning documents is flawed. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter concludes that given the lengthy time period to prepare the document, early scoping meetings are perhaps not applicable to the planning process. As stated in Section 1.0 Introduction of the Draft OVOV Program EIR: "To determine which environmental topics should be addressed in this EIR, the City of Santa Clarita prepared and circulated a Notice of Preparation (NOP) from July 25, 2008, through December 31, 2008, in order to receive input from interested public agencies and private parties. On August 4, 2008, a scoping meeting was held at City Hall. The NOP and scoping meeting are discussed further under the heading Format and Content of this section." While the OVOV process might have started in 2000, the NOP and Scoping hearing were held in the past several years and comments are applicable to the planning effort under review.

Response 3

The commenter states that the numerous public outreach programs were merely a PowerPoint presentation of the City's plan and not an effort to gather or hear public comment. We direct the commenter to Section 1.0, Introduction, Table 1.0-1 pages 1.0-3 through 5 in both the County's and City's Draft EIRs. There are three pages of meetings held and scheduled to discuss the Draft OVOV document. The City and County hosted joint workshops throughout the Santa Clarita Valley in 2001, 2007, and 2008. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter stated that a joint plan appears to make sense as new plans and laws have become available and should be used to help and inform and improve the planning process. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter does not believe that the OVOV Plan is a joint plan. It is two separate plans. Hearings are not held jointly and mitigation measures are not jointly enforceable. As stated in Section 1.0, Introduction of the Draft Program EIR, "The OVOV planning process reflects the City's and County's mutual decision to coordinate land uses and the pace of development with provision of adequate infrastructure, conservation of natural resources, and common objectives for the Valley. Major goals of the OVOV joint planning effort were to achieve greater cooperation between the City and the County; coordinated planning for roadways, infrastructure, and resource management; and enhanced quality of life for all who live and work in the Santa Clarita Valley." Because there are two separate and distinct jurisdictions working together, it was necessary to provide two separate planning documents. The vast majority of both documents are the same if not similar. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter believes that the separate processes are a huge problem for enforceability of the goals the agencies are proposing and it is confusing to the public. Both the City of Santa Clarita and the County of Los Angeles is responsible for enforcing all of the goals and policies within each plan. Consequently, there should be no difficulty with each jurisdiction responsible for ensuring that their Plan is adhered to. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter requested a detailed comparison of both County and City documents as well as an overlay showing the changes in current versus proposed Land Use changes prior to the close of the public comment period. The requested comparison was of the County's Draft Santa Clarita Valley Area Plan, which was released in September 2009, to the County's Revised Draft Santa Clarita Valley Area Plan, which was released in November 2010. Please be advised that these documents are available on the Department of Regional Planning's Web Site, as follows:

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- *Chart with differences between goals, objectives, and policies:* http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-goals.pdf
- *Chart with differences between land use designation descriptions:* http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-plans.pdf

A map showing the changes in land use designations can be found on OVOV-NET, an Interactive Geographic Information System (GIS) that includes the County's existing and proposed land use designations, as well as other geographic information, may be accessed at <http://planning.lacounty.gov/ovovnet>.

In addition, Section 3.1 of the County's Revised Draft Environmental Impact Report (RDEIR) includes a land use change map (Figure 3.1-3). Section 3.1 of the RDEIR is available on the Department of Regional Planning's Web Site:

http://planning.lacounty.gov/assets/upl/project/ovov_2010-eir-3-1-land-use-111710.pdf

The aforementioned documents, as well as other documents related to the Santa Clarita Valley Area Plan Update, are available on the Department of Regional Planning's Web Site at <http://planning.lacounty.gov/ovov>. The documents are also available at the County libraries in Acton/Agua Dulce, Castaic, Newhall, and Valencia.

Response 8

The commenter states that most EIRs have a regulatory section outlining which federal, state and local laws apply. Although the City's RDEIR does not have a "Regulatory Setting" section, most of the environmental analysis sections have a "Regulatory Framework," "Regulatory Context," or "Regulatory Setting" subsection. We direct the commenter to the following pages within the Draft EIR outlining the applicable regulatory laws and rules which apply to the project:

- Section 3.1 – Land Use – pg. 3.1-15 to 3.1-18
- Section 3.2 – Transportation and Circulation – pg. 3.2-28 to 3.2-31
- Section 3.3 – Air Quality – pg. 3.3-25 to 3.3-34

- Section 3.4 – Global Climate Change – pg. 3.4-12 to 3.4-34 (Note: This is where Assembly Bill 32 and Senate Bill 375 are discussed)
- Section 3.5 -- Agricultural Resources – None (Note: Although this section does not have such a subsection, it appears that information regarding the regulatory framework is provided in the “Existing Conditions” subsection -- pg. 3.5-1 to 3.5-13)
- Section 3.6 – Aesthetics – pg. 3.6-16 to 3.6-20
- Section 3.7 – Biological Resources – pg. 3.7-30 to 3.7-34
- Section 3.8 – Cultural Resources – pg. 3.8-13 to 3.8-16
- Section 3.9 – Geology, Soils, Seismicity – pg. 3.9-25 to 3.9-26
- Section 3.10 – Mineral Resources – pg. 3.10-5 to 3.10-6
- Section 3.11 – Hazards and Hazardous Materials – pg. 3.11-16 to 3.11-21
- Section 3.12 – Hydrology and Water Quality – pg. 3.12-18 to 3.12-25
- Section 3.13 – Water Service – pg. 3.13-109 to 3.13-112
- Section 3.14 – Community Services – pg. 3.14-9 to 3.14-11; pg. 3.14-19; and, pg. 3.14-27 to 3.14-28
- Section 3.15 – Public Services – pg. 3.15-8 to 3.15-9; pg. 3.15-16 to 3.15-17; pg. 3.15-30 to 3.15-31; pg. 3.15-42 to 3.15-47; and, pg. 3.15-59 to 3.15-60
- Section 3.16 – Parks and Recreation – pg. 3.16-17 to 3.16-20
- Section 3.17 – Utilities and Infrastructure – pg. 3.17-9 to 3.17-12; pg. 3.17-22 to 3.17-28; and, pg. 3.17-45 to 3.17-48
- Section 3.18 – Noise – pg. 3.18-18 to 3.18-26
- Section 3.19 – Population and Housing – pg. 3.19-5 to 3.19-7

Response 9

The commenter requested at a minimum a summary of the requirements of AB32 and SB375 and to be provided to the public prior to the close of the comment period. Please see **Response 8**, above, noting that this information requested is included in the Draft EIR.

Response 10

The commenter believes that both the County of Los Angeles and the City of Santa Clarita are being approved and yet it appears that these projects would comply with aspects of OVOV.

The commenter also adds that applications are being “grandfathered” and annexations are occurring to allow development. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter believes that this is time to pause as the population predictions of earlier plans have not been realized, the economy is in a down-turned state, and to offer a plan that everyone understands and is enforceable. With regard to the issue of enforceability, please see **Response 6**, above. With regard to the issue of the project being confusing to the public, please see **Response 3**, above, outlining the numerous opportunities that the public has had to ask questions about the OVOV Plan.

Response 12

The commenter requested that the commenter period be extended. The Draft Program EIR comment period was extended to 90 days (an extension of 45 days in additional to the standard CEQA 45-day review period). A subsequent 60-day extension for the review was granted for a total of 150 days.

Response 13

The comment requested that the City place a moratorium on new applications and approvals until the Plan is complete and raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 14

The comment requested that the City and the County have identical closing dates on their review periods and conduct joint meetings and raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR

27143 Crystal Springs Road
Canyon Country, CA 91387

January 7, 2011

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Blvd., Suite 302
Santa Clarita, CA 91355

Re: DEIR for City of Santa Clarita OVOV General Plan - SCH# 2008071133

Dear Mr. Smisko:

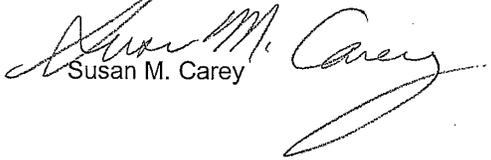
I am a resident of Canyon Country and am reviewing the above document, and Los Angeles County's RDEIR for its Santa Clarita Valley Area Plan Update One Valley One Vision for issues important to fellow residents of Crystal Springs Ranch Homeowners Association and other Sand Canyon residents. Is there a comparison available, or can one be made available, of the City's currently proposed Plan Update and the County's Revised Draft Plan?

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The massive amount of material in both plans makes it very difficult for members of the public to review a single Plan, let alone both Plans – and finding the differences between the Plans in order to analyze them and make effective comments is even more difficult. Please let me know where I can find a comparison on the Internet if one exists, or if one does not exist, please let me know if one can be made available as soon as possible for the public to use in reviewing these highly-significant documents.

Thank you.

Sincerely,


Susan M. Carey

RECEIVED
PLANNING DIVISION

JAN 13 2011

CITY OF SANTA CLARITA

Letter No. D30

Letter from Susan Carey, January 7, 2011

Response 1

The commenter requested a comparison of the City's Draft General Plan, which was released in September 2010, to the County's Revised Draft Santa Clarita Valley Area Plan, which was released in November 2010. Please be advised that these documents are available on the Department of Regional Planning's Web Site, as follows:

- *Chart with differences between goals, objectives, and policies: http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-goals.pdf*
- *Chart with differences between land use designation descriptions: http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-plans.pdf*

The commenter also requested a document that compares the Land Use Policy Map in the City's Draft General Plan to the Land Use Policy Map in the County's Revised Draft Santa Clarita Valley Area Plan. Please be advised that these Land Use Policy Maps are consistent with each other. The primary difference between the two Land Use Policy Maps is the naming of the land use designations. For example, the Rural Land 1 (RL1) designation on the County's Land Use Policy Map is named Non-Urban 5 (NU5) on the City's Land Use Policy Map. The differences between the names and descriptions of the land use designations are contained in the second chart cited above.

The commenter also requested information with regard to zoning. The Department of Regional Planning has prepared a Zoning Map that would be adopted concurrently with the Santa Clarita Valley Area Plan Update. The Zoning Map is available on the Department of Regional Planning's Web Site:

http://planning.lacounty.gov/assets/upl/project/ovov_proposed-zoning-map.pdf

The City of Santa Clarita is not proposing any zoning changes at this time, although City staff will conduct a zoning consistency analysis after its General Plan is adopted. The City does not have zoning for unincorporated County areas, as those areas are outside of its jurisdiction. When the City proposes to annex an unincorporated County area, it establishes "pre-zoning" for that area.

The aforementioned documents, as well as other documents related to the Santa Clarita Valley Area Plan Update, are available on the Department of Regional Planning's Web Site at <http://planning.lacounty.gov/ovov>

The documents are also available at the County libraries in Acton/Agua Dulce, Castaic, Newhall, and Valencia. OVOV-NET, an interactive Geographic Information System (GIS) that includes the County's existing and proposed land use designations and zoning designations, as well as other geographic information, may be accessed at <http://planning.lacounty.gov/ovovnet>.

Michael A. Naoum III
27301 Eaglehelm Drive
Santa Clarita, CA, 91387
(310) 267-4821
(310) 801-3841

January 13, 2011

Mr. Jason Smisko
Senior Planner
City of Santa Clarita
23920 Valencia Blvd
Santa Clarita, CA 91355

Dear Mr. Smisko:

As you know, the public comment period for the One Valley One Vision General Plan update is due to expire soon. As the Plan has been under development for several years, I ask your consideration in extending the deadline for review comments. As you well know the components of the Plan are quite voluminous and time consuming to review. That coupled with the fact that the plans of both the City of Santa Clarita and the County should be reviewed supports an extension of the comment period.

1

Thanks in advance for your consideration.

Sincerely,

Michael Naoum

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PLANNING DIVISION

JAN 13 2011

CITY OF SANTA CLARITA

Letter No. D31

Letter from Michael Naoum, January 13, 2011

Response 1

The commenter requested that the commenter period be extended. The Draft Program EIR comment period was extended to 90 days (an extension of 45 days in addition to the standard CEQA 45-day review period). A subsequent 60-day extension for the review was granted for a total of 150 days.

Jason Smisko

From: CHARLES O'CONNELL [chuckoconnell@prodigy.net]
Sent: Tuesday, January 25, 2011 3:40 PM
To: Jason Smisko
Subject: OVOV Transportation

Dear Jason-

The OVOV appears to be an excellent document / plan:

I note the there is significant widening called for along the Old Road [6 lanes]and Sierra Highway 6 lanes] south to the City of Los Angeles city limit. However, in the City of Los Angel es there are 2 lanes on Foothill Blvd and on The Old Road /San Fernando Rd only 2 lanes under the I-5 and 4 lanes south of the Sierra Highway intersection within the City of Laos Angeles.

Unless I missed it, there still does not appear to be any provision for realistic alternate routes between the SCV and the SFV. With more development in the SCV, there will be heavy traffic volumes, accidents, fires, earthquakes, etc. that will strangle traffic in the vicinity of the 5/14/210 I/C. There is an urgent need for a highway to the east of SR 14 that connects to Sylmar, perhaps by tunnel through to Roxford. [At one time the LACMTA had a tunnel, extending Newhall Ave to Roxford.on some planning documents.] In addition there is an urgent need for a route, west of I-5, that connects over the mountains to the Reseda Blvd. area.

More detailed information on this urgent need is available in my Nov 23, 2008 article published in the Opinion Section of The Signal.

Sincerely,

Charles O'Connell, PE

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1/27/2011

Letter No. D32

Letter from Charles O'Connell, January 25, 2011

Response 1

The City acknowledges your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 2

The commenter made note of roadways between the City of Santa Clarita and the City of Los Angeles. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter voiced concern for the need for alternative routes between the Santa Clarita Valley and the San Fernando Valley. The commenter indicated that there is an urgent need for a highway to the east of SR-14 that connects to Sylmar. The City of Santa Clarita believes that the existing and proposed access routes contained within the OVOV Circulation Plan will serve the City under emergency circumstances. As development is proposed in this area, project-specific circulation patterns and emergency access routes will be evaluated and analyzed as appropriate. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: chuckoconnell [chuckoconnell@prodigy.net]
Sent: Tuesday, January 25, 2011 10:04 PM
To: Jason Smisko
Subject: Fw: Wake up call - Connections to SFV - OVOV
Attachments: Connections to SF Valley - Letters Editor 111508.doc

Dear Jason-

As a follow-up to my email comment today about the transportation /circulation element of OVOV, attached is a copy of the article I referenced in my earlier email, relative to the need for alternate routes out of the SCV. It was published as an Opinion article in the Nov 23, 2008 edition of The Signal. I believe it is even more relevant today.

1

I hope the need for alternative routes will be seriously considered in OVOV.

Sincerely,

Chuck O'Connell

661 253 3428

1/27/2011

25018 Smokewood Way
Stevenson Ranch, CA 91381
November 17, 2008 AD

Letters to the Editor
The Signal
24000 Creekside Road
Santa Clarita, CA 91355

Dear Letters to the Editor:

How many more wake up calls do we need? We have had 2 earthquakes [1971 and 1994] shutting down the I-5 [Golden State] and the 14 [Antelope Valley] freeways. The southbound I-5 truck tunnel fire, and even the "watermelon spill" southbound I-5 at Roxford Street effectively shut down the 5 and 14 freeways. And once again we have had fires that have completely shut down the I-5 from 126 to the 405, as well as the 14 Freeway, Sierra Highway and The Old Road! .

Unfortunately, over the past 30 years, we have seen our elected officials, at all levels, cave in to the environmental "extremist" lobby and the NIMBYS. Former Governor Jerry Brown set the stage for these traffic disasters at the State level, but local elected officials were equally responsible for the State not being able to complete the Freeway and Expressway [F&E] System. The F&E System, established by the legislature in the 50s to meet the region's transportation needs in the 80s, has only been about 65% completed. If the elected officials had done their job and completed the Route 2 [Glendale] Freeway to Palmdale, we wouldn't be experiencing much of the additional traffic from the Antelope Valley area that is currently on the 14 freeway. We are now paying the price, in a big way. Key portions of both Route 2 and Route 14 have not been pursued as Freeways or arterials by previous legislators lacking both courage and foresight. To further complicate, muddle and politicize matters, the legislature has given the LA County Metropolitan Transportation Authority [LACMTA] effectively control over key decision-making processes. [A very large share of the transportation funds in LA County have gone to subways and other forms of transit and not freeway improvements. One only has to look at the "Stone Age" six lane Santa Ana Freeway in Los Angeles County versus the 12-lane counterpart in Orange County.]

We need, as a minimum, a route over the Santa Susana Mountains between the central San Fernando Valley and the west side of the Santa Clarita Valley. In addition, a tunnel extending San Fernando Road in Newhall through to Roxford Street in Sylmar on the east side of the SCV is also needed. Although never constructed, that portion of State Route 14 from Route 1 [Pacific Coast Highway] near Sunset Blvd to Route 5/14/210 interchange, near Sylmar is still on the official Freeway and Expressway System. With a little adjustment in alignment that route could run northerly from Reseda Blvd area over the Santa Susana Mountains to several possible connections such as Rice Canyon, Towsley Canyon or the proposed Pico Canyon extension near Mentryville area, or other options.

How many wake up calls do we need? The connections "over the hills", whether conventional highways, expressways or whatever, are a must if the San Fernando and Santa Clarita Valleys and State commerce are to continue to prosper. While I-5 urgently needs the planned widening and truck lanes, that are presently under going the environmental and planning process, alternate routes to address the disasters that will no doubt occur at the "jugular vein" intersection of I-5 and 14 with the 210 and 405 are desperately needed. Does anyone have the courage to lead a coalition of legislators / elected officials who understand the needs as well as the potential crisis that awaits us if this is not finally addressed?

Sincerely,

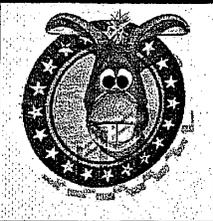
Charles J. O'Connell, P.E.
Deputy Director
Caltrans, retired
661 253 3428

Letter No. D33

Letter from Charles O'Connell, January 25, 2011

Response 1

The commenter referenced an editorial article published in The Signal concerning the need for alternative circulation routes to Sylmar. Please see **Letter D32 Response 3** for response to emergency access in the Santa Clarita Valley.



The Democratic Club of the Santa Clarita Valley

31945 Emerald Lane, Castaic, CA 91384-3102; (661) 295-9318
Email: crazycatherder.ca.rr.com; Website: <http://www.scvdems.org>

Monday, January 31, 2011

Executive Board Members:
 Allan Cameron, President,
 Minerva Leah Williams-Hoover, Vice President
 Todd L. Hoover, Correspondence Secretary
 Michael Cruz, "Interim" Recording Secretary
 Rick Drew, Treasurer
 Kristin Ingram-Worthman,
 Los Angeles County Democratic Party, Representative
 Steve A. Brooks,
 Democratic Party San Fernando Valley Representative
 Todd L. Hoover, Webmaster

**Mayor Marsha McLean, City of Santa Clarita
23920 Valencia Blvd. Room #300,
Santa Clarita, California 91355**

RE: One Valley, One Vision (OVOV): Sufficient Time for Public Review and Policy Issues, on the New General Plan

Dear Mayor Marsha McLean,

At our first General Meeting of 2011, the Democratic Club of Santa Clarita Valley, an officially chartered Democratic Party organization whose mission is, among other things, to provide information to the approximate 54,000 registered Democrats in the Santa Clarita Valley, voted unanimously, to request sufficient time to read and understand the new General Plans for the future of our valley.

The purpose of this letter is to request adequate time to review the massive quantity of documents that comprise the OVOV, and to address the question of how the General Plan was written without the commissioning of a citizen's based General Plan Advisory Committee. It is urgent that this item be placed as an action agenda item before the public and the City Council at its next meeting.

We are aware that the legal allocation of time for review is 45 days, and the City has already made 150 days available. We thank the City for this additional time.

However, the issue is not whether more time than the minimum was granted, but whether the time granted is adequate. Even 150 days of time does not allow for careful review and understanding of documents that will define the future of our Santa Clarita Valley for decades.

Given the "girth" of this critical document, (some 12,000 pages total) and the fact that the final version was only released at the start of the review period, it would be necessary to read 80 pages for each of the 150 available days, each and every day. None of us has done so, and we believe that you have not done so either.

In addition, the Los Angeles County Planning OVOV document counterpart, supposedly almost identical to the City Document, is in fact, different. It also is nearly four feet thick. In reality, this means that Santa Clarita Valley citizens would be required to read and understand EIGHT FEET OF MATERIAL in order to be able to make cogent comments regarding their future.

Understanding both plans would mean studying 160 pages each day during the review period. Clearly, this burden is impossible for your constituents to bear.

There is a vital aspect of this review period that must not be overlooked. It may be said by staff members that comments will still "be accepted" after the legal review period has expired. However, that misses the point. The issue is whether comments submitted to the City and County record will get a written response.

be analyzed by staff and consultants and be included as part of the public hearings that will occur AFTER the review period has concluded, and become a part of the so-called "Final Environmental Impact Report".

Unless the formal comment period is extended, the public need will not be met.

Ten percent of the time the plans took to prepare will be barely enough. The time needed for study is one year, during which 35 pages for one plan, or about 70 pages PER DAY would have to be read, each day, all year, for both City and County plans to be studied.

There is another issue, however, that we ask be the other subject of the agenda item we are requesting. When major public policy issues, (which are the exclusive purview of the Council and Board of Supervisors) are decided, there is a standard format for framing the discussion and ultimate decision.

The issue is described, action options are listed, one of these is usually recommended by staff, and the decision is then left to be made by the elected body, in a hearing before the public they serve.

We have discovered a surprising fact. Apparently, there was never a hearing before the City Council or the Los Angeles County Board of Supervisors where any decision was discussed or made as to the method that would be used to create the new General Plans for the Santa Clarita Valley.

Specifically, such an agenda item would have said. "It is time for a new General Plan for the City to be prepared. Multiple ways to create the document are available. To create the document, should the City:

A.) Use the award winning methodology used in the creation of our present OVOV plan. This would involve:

- 1.) Sending out requests for proposals to top planning firms worldwide.
- 2.) Having staff select from these firms the best three finalists.
- 3.) Having the public and the Planning Commission and City Council interview the final three firms competing to assist in the plans creation.
- 4.) Having a vote in a Public Hearing to select the Plan Consultant.
- 5.) Asking for citizens to apply to serve on a "General Plan Advisory Committee" to actually draft the Plan, in public hearings, held twice monthly for 2.5 years (about 70 meetings.)
- 6.) Making certain that the "GPAC" represented points of view of all segments of the community, with educational, law enforcement, recreational, environmental, land development, business, labor, public health, senior, and other experts all present on the 26-member committee.
- 7.) Holding at least 15 special Planning Commission hearings on just the General Plan, for 5 and one half months.
- 8.) Holding at least eight special City Council hearings on just the General Plan for four months.

B.) Do none of the above in option "A" to create the New General Plans.

C.) Use an entirely different method from before to draft the New Plan, such as:

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Page 2

1. Have staff select just one consultant, who will never be publically interviewed by anyone prior to being hired.
2. Without any public discussion, have staff decide that there will be no Citizen Based General Plan Advisory Committee.
3. Have all critical plan content be written in private with major decisions, such as the number of elements in the plan, be made by staff and the consultants without asking for the public's consent in advance.

4

D.) Some other plan creation method to be determined by the City Council and the Public.

The listing above, so necessary when major issues of public policy are to be decided, never appeared on any hearing agenda before the City Council in reference to how the new General Plan would be created.

Without any public discussion, "Option C" in the hypothetical policy, agenda listing (that never, in fact never appeared) was the method that was used.

In addition to the issue of sufficient time for plan review to be granted to the public (based on how much time is needed for a good job to be done), please also ask and answer these two questions.

5

Why did the Santa Clarita City Council not exercise its authority to hold a public hearing on the fundamental question as to what method would be used to create a new OVOV General Plan?

Why was a Citizen Based General Plan Advisory Committee not used in the Plan's creation, who on the staff made the decision not to have a GPAC, and why was that decision never presented to the Santa Clarita City Council in a hearing?

6

Since the public comment now ends on February 22, 2011, time for this item to appear before the Council on the agenda is quite limited.

7

Pending your response, this letter will not be sent to any media outlets, State officials, or other organizations. We look forward to working with you to create the best possible Plans, both in terms of content, and in terms of the process used to create them.

8

Sincerely,

Minerva Williams Hoover,
Vice President, Democratic Club of the Santa Clarita Valley

cc: Santa Clarita City Council Members:

23920 Valencia Blvd., Suite 300, Santa Clarita, CA 91355 (661) 259-8125; (661) 259-CITY [2489] Fax: (661) 259-8125

Frank Ferry: (661) 255-4309 fferry@santa-clarita.com;

Laureen Weste: (661) 255-4312 lweste@santa-clarita.com;

Laurie Lender: (661) 259-2489 lender@santa-clarita.com;

Bob Kellar: (661) 255-4311 bkellar@santa-clarita.com;

Marsha McLean: (661) 259-8125 mmclean@santa-clarita.com;

City's Manager:

Page 3

23920 Valencia Blvd., Santa Clarita, CA. 91355

Kenneth R. Pulskamp, City Manager: (661) 255-4905, kpulskamp@santa-clarita.com;

Kenneth Striplin, Ed.D. Assistant City Manager: (661) 255-4336; FAX (661) 259-8125, kstriplin@santa-clarita.com

Santa Clarita City Planning Commissioners:

23920 Valencia Blvd., Santa Clarita, CA. 91355 (661) 259-CITY; (661) 259-2489; Fax: (661) 259-8125

<http://www.santa-clarita.com/Index.aspx?page=81>

Tim Burkhardt, Chair,

Dee Dee Jacobson,

Dr. Dennis Ostrom,

Bill Kennedy,

Lisa Eichman.

Santa Clarita City Planning Department and Staff:

23920 Valencia Blvd., Santa Clarita, CA. 91355 (661) 255-4330

Paul Brotzman, Director

Jeff Hogan, Interim Planning Manager

Jason Smysko, Planner

City Attorney:

Joseph M. Montes, Burke, Williams and Sorenson,

23920 Valencia Blvd., Santa Clarita, CA. 91355 (213) 236-0600

Letter No. D34

Letter from the Democratic Club of the Santa Clarita Valley, January 31, 2011

Response 1

The commenter requested that the commenter period be extended. The Draft Program EIR comment period was extended to 90 days (an extension of 45 days in addition to the standard CEQA 45-day review period). A subsequent 60-day extension for the review was granted for a total of 150 days.

Response 2

The commenter addressed the format for how major public policy issues are addressed before the City Council. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter stated that there was never a hearing before the City Council or the Los Angeles County Board of Supervisors to discuss the need for new General Plans for the Santa Clarita Valley. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter suggested verbiage for how the agenda item that should have been taken to the City and County to prepare a new General Plan should have read. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter asked, in addition to the additional time requested to review the document the commenter asked why was a public hearing not held on the decision to prepare a new General Plan. Please see **Response 1** above regarding the request for additional time. The decision to not conduct a public hearing on the need for a new General Plan raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter questioned why an Advisory Committee was not used in the preparation of the OVOV General Plan and why was this decision not presented to the City Council in a public hearing. The decision to not conduct a public hearing on the need for a new General Plan or use an Advisory Committee raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter stated that since the comment period closes on February 22, 2011, time for this item to appear on the City Council agenda is limited. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenter stated that pending response to this letter, it will not be sent to any media outlets, and the commenter wants to work with the City to create the best possible plan, in terms of content and process. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

**One Valley One Vision: Draft EIR
Land Use/Flood Concerns**

General comments

- Economics/population adjustment: The economy continues to struggle locally and nationally; foreclosures continue. While there are slight indications of a job recovery, it is primarily in the service segment of the economy and California's recovery lags behind many states. This document should reflect the reality that recovery will be slower here than in other parts of the country. One Valley One Vision should reflect a significantly lower level of growth and lower build-out numbers than are currently projected.
- Determine site suitability before applying entitlement: Several of the areas slated for increased density are landlocked tracts subject to periodic flooding. Since this document will govern planning issues in Santa Clarita for decades, it is imperative feasibility studies be completed and made public before the entitlement is overlaid on the area.
- Sphere of Influence: Santa Clarita has a Sphere of Influence north and east of Canyon Country. The Vista Canyon project lies in this area and a Resolution for Annexation into the City is scheduled on the February 15, 2001 Planning Commission Agenda. The project is not discussed in the City's version of OVOV. Compliance to all the principles espoused in the City's version of OVOV must be adhered to prior to the annexation.
- Both County and City versions of One Valley One Vision should show combined traffic flows either as "pass through" or "destination" traffic volumes. Since the City's version proposes higher residential and commercial densities, traffic will be drawn back and forth between the two plans and must be accounted for.
- Designations, such as Specific Plans or Mixed Use Neighborhoods, must account for new traffic flows generated by and through the plan areas. As the Whittaker-Bermite property is cleaned and developed, trips from this area may well involve the Calgrove extension which affects neighborhoods along the Calgrove Corridor. If there are major impediments to the proposed Lyons-Dockweiler at-grade rail crossing, much of the traffic from North Newhall may pass through the Circle J-Whittaker-Bermite area affecting both Calgrove and Placerita Canyon neighborhoods.
- ADA: While Santa Clarita will ultimately apply all the ADA requirements, they must be included in this document. A higher number of disabled parking places will be required to accommodate the aging population. Traffic circulation will also be affected as the elderly and disabled will need a longer time to cross major intersections. That will impact the timing of traffic signals which in turn affect the number of vehicles traversing these intersections in a given period of time. That will have an impact on AB32 which mandates lowering vehicular emissions.
- Inclusionary Housing: Whether by incentive or penalty, Santa Clarita must require developers to build more affordable units in the Valley.
- The term "periodically" is used throughout the document and must be defined: Is it annually? Every two years? Every five years? Without determining the appropriate interval, problems may become critical before "periodic" monitoring takes place.

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- Job-Housing ratio: One Valley One Vision must reflect not just raw numbers of jobs in the “jobs-housing ratio,” but specify the type of jobs. It is true our nation’s economy is becoming more of a service economy, but those jobs do not pay enough for people to afford to live in this community. If we are to increase the number of jobs in the Valley in order to reduce the need to commute, OVOV must pay attention to the type of jobs we are seeking and ensure the increased labor force can afford to live in the community in which they work.
- The Circulation element of OVOV is at LOS D or lower in many parts of the Valley both on surface streets and on the freeways serving the Valley. If the Cemex facility is developed, as looks increasingly likely with the Federal budget constraints and earmark prohibitions, the Valley’s circulation will be even more draconian. This potential must be factored into traffic modeling as it will affect the Land Use element as well as the lower Greenhouse Gas emissions mandated by AB32.

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Draft EIR Comments

Page 3.1-11 Specific Plans: It is vital to add “circulation” and “flooding/liquefaction” to the list of considerations in discussing this overlay. Studies on these two elements must be done and thoroughly discussed with the affected neighborhoods prior the applying the MXN (Mixed Use Neighborhood) Overlay or Specific Plan designation in order to meet AB32’s Greenhouse Gas emission limitations, and the City’s Flood Management Ordinance, adopted in 2008, which is based on the California Model Floodplain Management Ordinance issued by the California Department of Water Resources.

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Where the MXN Overlay is considered (as in the North Newhall and Smiser areas), flood studies and trip models must be completed prior to applying the designation. The Whittaker-Bermite Specific Plan area must also show new road designations accounting for fault lines and potential toxic problems.

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Page 3.1-15 The SCAG-supported Compass Blueprint Growth Vision must be completed and presented in concert with the proposed North Newhall Specific Plan so that the impact of the proposed growth at full build out can be considered.

The City and a consulting firm met with residents from the neighborhoods affected by the Compass Plan in the spring of 2010. The attendees drew up plans of land uses they considered compatible with their existing neighborhoods. A follow-up meeting was scheduled in fall 2010 and then was “postponed.” The Compass Plan must be finalized with Circulation Studies completed to ensure compliance with AB32 prior to applying the MXN overlay.

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Page 3.1-33 “Future infill and redevelopment of currently developed areas shall be consistent with community character.” Proposed development in the Specific Plan and MXN areas is significantly denser than in existing neighborhoods. New road alignments must be developed before applying the new designation in order to preserve the character of the existing neighborhoods as well as supporting adequate circulation both for safety and to ensure compliance with AB32.

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Page 3.1-35 Policy LU 1.2.6: “In Placerita Canyon, ensure compatibility with existing rural, equestrian lots and the adjacent National Forest land; maintain community

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character in accordance with the City's Placerita Canyon Special Standards District..." Since the Placerita Canyon SSD is a geographic one extending from the railroad tracks on the west to Sierra Highway on the east and ridge to ridge north and south, the proposed portion of the North Newhall Specific Plan designated to be placed under the MXN Overlay, the OVOV Draft EIR strips a large portion of the SSD and completely changes the rural equestrian nature of Placerita Canyon.

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Page 3.1-37 Policy LU 2.3.1 "In a mixed-use neighborhood, residential densities at the higher end of the allowed range should be allowed only if the development incorporates a robust mix of non-residential uses."

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Both circulation and flood plain management considerations must be studied prior to applying the MXN designation. In the case of both North Newhall and the Smiser areas, both are land-locked areas creating circulation challenges. Both are also in areas highly susceptible to flooding with the Smiser property also lying in a liquefaction zone.

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Page 3.1-40 Impact 3.1-2 "There will be a potentially significant impact if future development permitted by the proposed General Plan may conflict with an applicable land use." Placerita Canyon, in its entirety, is a Special Standards District. The purpose is to protect its rural equestrian atmosphere. This is incompatible with the MXN designation in the new plan, which promotes high density both of homes and businesses but has no indication of new roads for adequate access. Furthermore, the proposed "down zoning" in Placerita Canyon north of Placerita Creek must be maintained north of the creek even in the area encompassed by the proposed NNSP.

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Page 3.1-41 Objective LU 5 "Enhanced mobility through alternative transportation choices and land use patterns." Many of the proposed "Valley of Villages" will significantly reduce mobility by increasing both residential and commercial density in what are basically land-locked areas. Before the overlays are approved, studies need to be done to show the designated MXN areas can sustain the level of growth proposed.

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Page 3.1-43 Policy C 2.1.5 Throughout the Draft EIR, the term "periodically" is used. It needs to be defined: Is it every year? Every two years? Every five years? Without determining the appropriate interval, problems may become critical long before any "periodic" monitoring takes place.

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Page 3.1-46 Policy C 2.2.4 LOS E or F is not acceptable in "land-locked" areas such as Smiser or North Newhall. Both of these areas have a single access. Even using peak hour analysis, tolerating gridlock for even a few hours a day could prove catastrophic. Alternative access must be provided before the overlay is approved.

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Page 3.1-47 Goal LU1: interconnected Valley of Villages providing diverse lifestyles." As part of the current planning documents, develop standards for "inclusionary housing" to encourage and allow all ages and economic levels to live in proximity. Such documents should include incentives to encourage developers to give more than lip service to such developments, and severe penalties if they do not comply.

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Page 3.1-48 Policy LU 1.3.4 "Encourage density transfers where appropriate to facilitate development in more suitable locations." Both Smiser and North Newhall have significant limiting factors: poor access and circulation, flood prone, and, in the case of Smiser, liquefaction. Show what studies have been done to justify the increased density.

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Policy LU 1.3.6 "Encourage retention of natural drainage patterns and the preservation of significant riparian areas." Both Smiser and North Newhall are prone to significant flooding; the MXN densification will threaten the natural drainage patterns and threaten neighborhoods both upstream and downstream. In the case of North Newhall, a significant area available for recharge is threatened. Show studies have been done to justify the increased density. The Smiser property is subject to liquefaction.

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Page 3.1-49 Policy CO 1.1.2 "In making land use decisions, consider the impacts to human activity within watersheds and ecosystems, to maintain the functional viability of these systems. (See LU 1.3.6 above.)

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Page 3.1-52 Policy C 2.5.2 "Ensure that new development is provided with adequate emergency and/or secondary access for purposes of evacuation and emergency response, require two points of ingress and egress for every subdivision or phase thereof, except as otherwise approved for small subdivisions where physical constraints preclude a second access point." This policy must be enforced prior to laying any overlay on a given tract of land. Further, the area at build-out must be considered prior to allowing the abandonment of the second access requirement.

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Page 3.1-53 Objective C 1.2 "Coordinate land use and circulation planning to achieve greater accessibility and mobility for users of all travel modes." Feasibility studies should be part of the OVOV documents prior to allowing any upzoning under this document.

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Page 3.1-54 Policy C 1.2.5: "In mixed use projects, require compact development and a mix of land uses, workplaces, and services within walking or bicycling distance to each other." Concerns about flooding/liquefaction and circulation must be addressed before upzoning overlays are applied.

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Page 3.1-56 Objective C 4.1: "Maximize the effectiveness of Metrolink commuter rail service through provision of support facilities and land planning." Santa Clarita's determination to implement the Lyons to Dockweiler at-grade rail crossing contradicts Objective C 4.1 as the installation of this crossing establishes three at-grade crossings in a half mile along a busy stretch of a major road. A study to show the feasibility of this proposal in terms of safety and circulation as well as compliance with AB32 should be part of the OVOV Draft EIR.

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Page 3.1-58 Policy C 5.1.6 "Evaluate the feasibility of giving buses priority at signalized intersections to maintain transit service level standards, where appropriate." The impact of this policy on Greenhouse Gas Emissions as mandated by AB32 should also be included.

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Page 3.1-6 Policy LU 1.2.6 The policy to ensure compliance with Placerita Canyon's Special Standards District must also include preservation of Circulation and Flooding safety elements. Also the downzoning proposed north of Placerita Creek should extend along the entirety of Placerita Creek into the section of the proposed North Newhall Plan.

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Page 3.1-68 Principle 3: "Enable prosperity for all people." If the North Newhall Area is to accommodate Transit Oriented Development and Low and Moderate income housing levels, the Compass Project must provide studies that show residents in low and moderate housing will actually use Metrolink to get to and from their jobs.

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Page 3.1-71 Policies LU 8.1.3 and 8.1.4 For ADA compliance, specific mention must also be made of the disabled and senior citizens who will need special accommodation to use trails and other community facilities.

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Page 3.1-76 Policy LU 1.1.3: "Discourage urban sprawl into rural areas by limiting non-contiguous, 'leap-frog' development outside of areas designation for urban use." Placerita Canyon's Special Standards District designates it "a rural equestrian community." The proposed MXN overlay is incompatible with low density housing and horse facilities.

34

Page 3.1-77 Policy LU 7.2.1 "Monitor growth, and coordinate with water districts as needed to ensure that long-range needs for potable and reclaimed water will be met." The MXN overlay in North Newhall and the Smiser areas is incompatible with this policy. Areas vital for re-charge of our precious underground water supplies will be lost if the proposed densification is implemented.

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Page 3.1- 78 Policy LU 7.3.5 "Limit development within flood-prone areas to minimize downstream impacts." Upstream neighbors must also be included; limiting the recharge area in these flood-prone areas will force more water volume to impact properties upstream. Again flood studies must be done before the MXN overlay is applied to flood-prone properties.

36

Page 3.1-82 Los Angeles County's Congestion Management Plan was adopted in 2002 and is in violation of the law which requires biennial updating. The CMP should be updated per law and be in compliance with AB32 prior to adoption of MXN overlays in land-locked areas.

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Page 3.1-83 Air Quality Management Plan. The Santa Clarita Valley suffers some of the worst air quality in the South Coast Basin. The problem is compounded with the demands of AB32. Any areas examined under OVOV should be analyzed for compliance with AB32 and no densification should be permitted until such compliance is demonstrated.

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Land Use: General Plan vs. Draft EIR

- There needs to be consistency between the two documents: Page L-7 of the Draft General Plan cites a key principle of SCAG's regional growth vision as "preserving natural surroundings." Yet many of the areas slated for heavy future development are areas subject to access problems, flooding and/or liquefaction concerns such as Smiser, North Newhall, and Vista Canyon.
- Page L-13. The section on Sand Canyon states that "Major planning issues include protecting the rural and equestrian character from developmental pressures..." No mention is made of the Vista Canyon proposal which is situated near the major entrance to the sheltered community as well as being located in a flood plain. The Vista Canyon project is currently under discussion by the Planning Commission both for approval of the Draft EIR and for annexation into the City. As such, this project must be included in the City's version of OVOV.

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- Page L-13 speaks to planning issues in Placerita Canyon including “providing flood control and drainage improvements; providing additional vehicular access...In addition, development in the area must comply with the City’s Special Standards District...” while completely ignoring the proposed MXN designation overlying a 100-acre parcel lies fully within the Special Standards District and is located in a floodplain.
- The final sentence on page L-25 is “Land was considered to be developable if it was vacant or under-utilized, privately owned, appropriately designated and zoned, and free of major constraints such as ridgelines and floodways.” The Draft EIR proposes zoning changes on a number of tracts despite major constraints such as access and floodways (i.e., North Newhall, Smiser and Vista Canyon.)
- Page L-33 Preservation of the Santa Clara River as an Ecological Resource. “The Santa Clara River traverses the entire Valley and represents a joint opportunity to preserve and plan for the protection and enhancement of this significant resource. Los Angeles County has designated over 40,000 acres adjacent to the Santa Clara River as a Significant Ecological Area (SEA #25) which encompasses the surface and subsurface hydrology of the river from its headwaters to the western county border.” Yet this valuable resource is impinged upon at the eastern reaches of Santa Clarita by the Vista Canyon project and two of its tributaries, Placerita and Newhall Creeks, lie in an area proposed to be designated Mixed Use Neighborhood (MXN) which will threaten not only the flow of this valuable resource but will significantly reduce the surface area available for recharge.
- Page L-44 “Development in the Valley is required to be protected from flood hazards by either staying out of areas prone to flooding, or through elevation of building pads in certain areas.” In Placerita Canyon, land north of Placerita Creek is being down-zoned because of the flooding potential; that designation must apply to all land north of Placerita Creek even that in the proposed North Newhall area. When the EIR was drawn up for the backbone sewer system in Placerita Canyon, engineering studies showed the system could be designed without pumps or lifts. All water in Placerita Canyon naturally drained to the field at the western end of the Canyon. Under the OVOV EIR, that field is scheduled to be designated MXN and is slated for some of the densest development in the Santa Clarita Valley. While buildings on this site may be elevated out of the flood zone, the City has already acknowledged properties upstream are presently at risk. With the loss of the field for protection, homes upstream will be at increased risk. Furthermore, this 100-acre presently vacant parcel would be lost as a significant recharge area, which the General Plan also lists as a priority.

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Letter No. D35

Letter from Valerie Thomas, February 14, 2011

Response 1

The commenter believes that the growth projections outlined for OVOV should reflect a significantly lower level of growth and lower buildout projected due to the slow economy. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter felt that site suitability and feasibility studies should be determined before applying entitlement over landlocked tracts that are subject to periodic flooding. Draft Program EIR Section 3.12 Hydrology, page 3.12-32 discusses OVOV policies and current practices that are in place to address flooding issues:

Policy S 2.1.1 requires the Land Use Map designate appropriate areas within floodplains as open space for multi-purposes, including flood control, habitat preservation, and recreational open space. Policy S 2.2.1 would require the City to prepare and maintain floodway areas based on FEMA records and other appropriate sources. The City currently has maps depicting 100-year flood zones as shown above in Figure 3.12-1. Policy S 2.3.1 and Policy S 2.4.1 would require that new development implement drainage master plans designed to handle storm flows from 100-year storm events and require that new development comply with FEMA floodplain management requirements. These policies would also help implement flood-proof construction and development for areas within the City's Planning Area that are within the 100-year floodplain (Objective S 2.3). Additionally, projects that will be developed within the City's Planning Area already are required to complete a hydrology/hydraulic study, and these reports must show that no hydrological impacts would occur from development of the individual projects.

Response 3

The commenter states that the Vista Canyon project is not discussed in the City's OVOV document. The commenter believes that compliance to all of the principles espoused in the City's version of OVOV must be adhered to prior to the annexation. The Vista Canyon project is requesting annexation from the County of Los Angeles to the City of Santa Clarita. Consistency of the Vista Canyon project with OVOV goals and policies (while not required as OVOV had not been adopted) was conducted for the Vista Canyon project. The commenter can find the consistency analysis at: <http://www.santa-clarita.com/index.aspx?page=795>.

Nonetheless, those areas within the sphere of influence did receive environmental analysis as a part of the OVOV Draft Program EIR analysis.

Response 4

The commenter stated that both the County and City versions of OVOV should show combined traffic flow as either “pass through” or “destination” traffic volumes. The commenter further states that because the City proposes higher densities and more commercial, traffic will be drawn between the two plans and must be accounted for. Draft Program EIR Section 3.2, Transportation and Circulation estimates all trips to be generated by the proposed OVOV Plan. There is no real mechanism to show pass through or destination volumes nor is there a need to show these volumes. Roadway volumes are depicted in figures and tables throughout Section 3.2, Transportation and Circulation. No further response is required.

Response 5

The commenter stated that Specific Plans or Mixed Use neighborhoods must account for new traffic flows generated. The commenter noted that as the Whittaker-Bermite property is developed trips may involve the Calgrove extension. Additionally, if there are major impediments to the Lyons-Dockweiler at-grade rail crossing and traffic may pass through the Circle J-Whittaker-Bermite area affecting both Calgrove and Placerita Canyon neighborhoods. As properties develop, a traffic study will be prepared as determined by a City-prepared Initial Study or determination by the City’s Traffic Engineer, that analyzes circulation impacts to potentially impacted roadways and intersections. The comment raises issues that address future projects and do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter states that ADA requirements need to be included in the OVOV EIR. The commenter states that a higher number of disabled parking spaces will be required as the population ages. The commenter also mentions that the traffic circulation will also be affected because the elderly take more time crossing roadways, which in turn affects the numbers of vehicles traversing intersections in a period of time and affecting AB32. The commenter should be aware that the City’s Zoning Ordinance provides the requirements for the provision of disabled parking spaces. The number of disabled parking spaces is determined by the building square footage—not the graying of the population. The comment concerning the elderly taking longer to cross a street affecting, turning movements and ultimately AB 32 while highly unlikely, only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter states that by incentive or penalty Santa Clarita must require builders to build more affordable housing units in the Valley. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenters requested a definition of “periodically” as referenced in “Policy C 2.1.5: Periodically monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.”

The County concurs that the term “periodically” can be confusing as to its definition. In response the County and the City have changed this policy to read as follows:

Policy C 2.1.5: At the time of project review, monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.

Response 9

The commenter did not believe that OVOV should stop at a job-housing ratio but should specify the type of jobs. The commenter believes that many of the jobs in the Valley do not pay enough for people to live in the Valley. Draft Program EIR, Section 3.19, Population and Housing page 3.19-4 discusses the jobs desired for the Valley:

In order to meet the goal of providing a jobs/housing balance of 2:1 the City of Santa Clarita is focused on attracting the kind of companies suited for the Santa Clarita Valley’s workforce, including jobs targeted in the aerospace, technology, biomedical, and film/entertainment industries. These industries currently have a strong business in the area and the Santa Clarita Valley boasts trained and qualified professionals that are currently, and will be ready to meet the needs of these unique industries.

Response 10

The commenter stated that many roadways are at a LOS D or lower, and the CEMEX site will likely be developed, the City’s traffic will worsen. The commenter states that this potential must be factored into the traffic modeling as it will affect the Land Use Element and we will lower Green House Gas emissions as mandated by AB 32. There is no reason to believe that the CEMEX site will be developed. If there was a potential for it to be developed it would be have been included in the traffic study conducted for OVOV.

Please see Draft Program EIR Section 3.4, Global Climate Change for how the OVOV project addresses AB 32.

Response 11

The commenter believes that it is vital to add the words “circulation” and “flooding/liquefaction” to the list of considerations when discussing the land use definition for Specific Plan. Circulation is a standard component of any Specific Plan, while flooding/liquefaction is a more site specific planning element. Therefore, no modifications to this section are necessary. The commenter also requested that studies on these two elements be prepared prior to the designations of MXN and Specific Plan are designated. Please also see **Response 2**, above. Please see Draft Program EIR Section 3.4, Global Climate Change for how the OVOV project addresses AB 32.

Response 12

The commenter stated that where the MXN designation is applied, floodway and traffic studies must be prepared. Also stating that the Whitaker-Bermite site must also show new roadway designations accounting for fault lines and potential toxic problems. The commenter is referring to specific development projects, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 13

The comment states that the SCAG-supported Compass Blueprint Growth Vision for the North Newhall Specific Plan must be completed and presented so that full buildout impacts could be considered. The traffic model prepared for the OVOV plan considered the most intensive use that could be proposed for the North Newhall Specific Plan area. Consequently, the potential growth impacts were considered in the Draft Program OVOV EIR, and it is not necessary to have the Plan approved and presented prior to action taken on the OVOV project. Please see Draft Program EIR Section 3.4, Global Climate Change for how the OVOV project addresses AB 32.

Response 14

The commenter is referring to a specific project in the North Newhall area in reference to community character discussion in the discussion of the MXN designation. Please see Draft Program EIR Section 3.4, Global Climate Change for how the OVOV project addresses AB 32. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will

be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The commenter is referring to consistency of a particular project with Policy LU 1.2.6. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 16

The commenter quotes Policy LU 2.3.1. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 17

The commenter stated that where the MXN designation is applied, floodway and traffic studies must be prepared. Please see **Response 12**, above.

Response 18

The commenter quotes potential impact 3.1-2 and states that the MXN designation is incompatible with the Placerita Canyon Special Standards District. Additionally, the commenter states that the downzoning in Placerita Canyon north of Placerita Creek must be maintained even in the area encompassed by the North Newhall Specific Plan project. The comment raises issues to the Land Use Element and do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 19

The commenter quoted Objective LU 5 and states that the valley of the villages concept will significantly reduce mobility by increasing residential and commercial density. The City disagrees with this notion and directs the commenter to Section 3.2, Transportation and Circulation that demonstrates that at OVOV buildout implementing the valley of villages concept traffic impacts will be less when compared with

existing General Plan buildout. The commenter states that studies must be prepared prior to designating any areas MNX. Please also see **Response 2**, above.

Response 20

The comment is the same as **Response 8**, above.

Response 21

The commenter stated that LOS E or F is not accepted in landlocked areas such as Smiser or North Newhall as these areas have a single access and an alternative access must be provided. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The Draft OVOV General Plan Housing Element includes Program H 1.11 that would evaluate the feasibility of an inclusionary housing program the City. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 22

The commenter suggested the development of standards for “inclusionary housing.” The commenter further suggested that there should be incentives to encourage developers to comply and severe penalties if they don’t comply. Development standards for inclusionary housing will be prepared as a part of the Zoning Code update following approval of the OVOV document. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 23

The commenter quoted Policy LU 1.3.4 and stated that the Smiser and North Newhall properties have limiting factors for density transfers. The commenter asked what studies have been done to justify the increased density. The commenter is applying a proposed policy to specific properties which is not the purview of a General Plan EIR. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 24

The commenter quoted Policy LU 1.3.6 and stated that the Smiser and North Newhall properties have significant flooding and the MXN designation will threaten the natural drainage patterns. The comment raises issues to the Land Use Element and do not appear to relate to any physical effect on the environment. In addition, the drainage/hydrology of individual project sites would be analyzed on project level basis. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 25

The commenter quoted Policy CO 1.1.2. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 26

The commenter quoted Policy C 2.5.2 and stated that this policy must be enforced prior to laying any overlay on a given tract of land. Additionally, that the area at buildout must be considered prior to the abandonment of the secondary access requirement. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 27

The commenter quoted Objective C 1.2 and stated that feasibility studies should be part of the OVOV documents prior to allowing any upzoning under this document. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 28

The commenter quoted Policy 1.2.5 and stated that concerns regarding flooding/liquefaction and circulation must be addressed before up-zoning overlay are applied. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 29

The commenter quoted Objective C 4.1 and stated that the City's determination to implement the Lyons to Dockweiler at-grade crossing contradicts this objective. The commenter also stated that a study to show the feasibility of the proposal in terms of safety and circulation as well as compliance with AB 32 should be part of the Draft EIR. The studies requested by the commenter are prepared at the time of project development. The OVOV General Plan Program EIR looks at Goals, Policies and Objectives and a general fashion. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. Please see Draft Program EIR Section 3.4, Global Climate Change for how the OVOV project addresses AB 32.

Response 30

The commenter quotes Policy C 5.1.6 and states that the impact of the policy on Greenhouse Gas Emission should also be included. Please see Draft Program EIR Section 3.4, Global Climate Change for how the goals, policies and objectives in the OVOV project addresses AB 32.

Response 31

The commenter stated that Policy LU 1.2.6 must also address preservation of circulation and flooding in the safety elements. Additionally, the commenter states that the downzoning in Placerita Canyon north of Placerita Creek must be maintained even in the area encompassed by the North Newhall Specific Plan project. The comment raises issues to the Land Use Element and do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 32

The commenter quoted Principle 3 and that the Compass Project must provide studies that show that residents in low and moderate income housing would actually use Metrolink to get to and from their jobs. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 33

The commenter stated that for ADA compliance, specific mention must be made for the disabled and seniors with respect to Policies LU 8.1.3 and 8.1.4. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 34

The commenter stated that LU 1.1.3 is incompatible with the MXN overlay in Placerita Canyon, low density housing and horse facilities. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 35

The commenter stated that the MXN overlay in the North Newhall and Smiser areas are incompatible with Policy LU 7.2.1. The commenter is referring to a specific development project, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 36

The commenter quoted Policy LU 7.3.5 and stated that flood studies must be done before the MXN overlay is applied to flood prone properties. Please see **Response 12**, above.

Response 37

The commenter stated that the CMP was last updated in 2002 and is in violation of the law that requires biannual updating prior to adoption of MXN overlays. Draft Program EIR, Section 3.2 Transportation and Circulation page 3.2-23 states:

Metro is the CMP agency for Los Angeles County. Metro has the responsibility to review compliance with the CMP by agencies under its jurisdiction. For any agency out of compliance, after receiving notice and after a correction period, a portion of State gas tax funds may be withheld if compliance is not achieved. In addition, compliance with the CMP is necessary to preserve eligibility for state and federal funding of transportation projects. Metro adopted the County's first CMP in 1992, and completed its most recent update in 2004.

It is not a responsibility of the City of Santa Clarita to update the CMP. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 38

The commenter stated that the Santa Clarita Valley has some of the worst air quality in the South Coast Basin and that the OVOV Plan should be analyzed for compliance with AB 32. Please see Draft Program EIR Section 3.4 Global Climate Change which analysis the impacts of the proposed project to AB 32.

Response 39

The commenter states that there needs to be a consistency between the two documents, yet the commenter states that areas slated for development are subject to access problems, flooding or liquefaction such as Smiser, North Newhall and Vista Canyon. The commenter does not specify the inconsistencies between the County OVOV and City OVOV Plans to be able to respond. Consequently no further response can be prepared.

Response 40

The commenter states that the Vista Canyon project needs to be included in the OVOV document as it is under review by the City. The Vista Canyon project is analyzed in the OVOV document by way of being located within the City's Sphere of Influence Planning Area which was analyzed in the OVOV Draft Program EIR.

Response 41

The comment addresses the General Plan Land Use Element and concludes that discussion within the Land Use Element ignores the MXN designation. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 42

The commenter stated that development densities were determined on parcels that have environmental constraints. The General Plan Land Use Element stated that development densities were determined based several factors one of which was free of major constraints such as ridgelines and floodways. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 43

The commenter quotes from the Land Use Element discussion regarding the Santa Clara River being an ecological preserve and how this valuable resource is impinged by the Vista Canyon project. Additionally two of its tributaries, Placerita and Newhall Creeks lie in an area proposed to be designated MXN which will not only threaten flows but will significantly reduce the amount of surface area available for recharge. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 44

The commenter quoted from the Land Use Element and stated that land north of Placerita Creek is being downzoned because of flooding potential, so must the proposed North Newhall area. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 45

The commenter raises concern that water in Placerita Canyon naturally drains to that area with the proposed MXN designation. The commenter is concerned that while homes may be elevated out of the flood zone, homes upstream may be at a risk. Please see **Response 2**, above.

Response 46

The commenter states that the 100-acre presently vacant parcel would be lost as a recharge area, which the General Plan lists as a priority. The comment raises issues to the Land Use Element and do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

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FEB 18 2011
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PLEASE REPLY TO:
ARNOLD K. GRAHAM

FILE NO:
PCPOA / GENERAL PLAN

VIA HAND DELIVERY, FIRST
CLASS U.S. MAIL, AND E-MAIL

February 18, 2011

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Re: Placerita Canyon Special Standards District
Public Comments to Draft Environmental Impact Report

Dear Santa Clarita Planning Commissioners:

This office has been retained to represent the Placerita Canyon Property Owners Association ("PCPOA") with regard to the negative effects which the City's General Plan update relating to the "One Valley One Vision" project ("Project") will have on Placerita Canyon. As established by the draft Environmental Impact Report ("DEIR") presently being circulated, the zoning designation proposed to be applied to the **Placerita Canyon Special Standards District ("PCSSD")** is inconsistent with the requirements of that District as set forth in the Santa Clarita Municipal Code.

The PCSSD is provided for in §17.16.080 of the Santa Clarita Municipal Code, which states as follows:

- A. Purpose. The purpose of the special standards district is to maintain, preserve and enhance the rural and equestrian character of Placerita Canyon.

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Page 2

B. Property Development Standards. The following requirements **shall** apply in all zones in the area identified as Placerita Canyon on the official zoning map and as described in subsection (E) of this section:

1. Animals which are kept or maintained as pets shall be permitted to continue when in accordance with the following:

a. Two (2) horses or other similar animals which, in the opinion of the Director, are neither obnoxious nor detrimental to the public welfare may be kept on a lot or parcel of land which has a minimum area of five thousand (5,000) square feet, but less than fifteen thousand (15,000) square feet.

b. The requirements of Sections 17.17.010, 17.17.020, and 17.17.030 of this code with respect to animal keeping are met, with the exception of the minimum lot area above.

2. Any new development **shall adhere to the following standards** or provide the following amenities:

a. Trails.

1. Riding and hiking trails shall be provided as depicted on the latest Placerita Canyon Backbone Trails exhibit on file with Parks, Recreation and Community Services to the satisfaction of the Director of Parks, Recreation and Community Services;
2. Trails shall be fenced to the satisfaction of the Director of Parks, Recreation and Community Services, with fences of a rustic wood appearance;
3. Trail access shall be provided at all river crossings;
4. There shall be no obstructions including, but not limited to, landscaping, trash receptacles, or other similar structures within the designated trail;
5. Fencing shall not be permitted to cross riverbeds in such a manner as to deny trail access;
6. Private access routes to the Backbone Trails are encouraged to be incorporated into new subdivisions to the satisfaction

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Page 3

of the Director of Parks, Recreation and Community Services and the concurrence of the property owner;

- b. A property maintenance or homeowner maintenance association may be established to maintain the private access route, private roads and drives and other specific project amenities; and
- c. Street lights, in accordance with City standards, shall be installed only at road-to-road intersections; and
- d. River bottoms and sides shall not be improved with concrete. Fencing shall not be permitted to cross riverbeds in such a manner as to deny trail access; and
- e. Bridges shall be located to those required for public safety and shall be designed to accommodate equestrian access; and
- f. All new residential projects of greater than four (4) dwelling units and all new commercial, industrial and institutional projects (including expansion thereof) shall connect to public sewer systems. Utilities shall be undergrounded to the nearest off-site connection; and
- g. Existing and future drainage shall be accommodated to provide adequate carrying capacity and erosion protection.

3. Residential Zones.

a. Residential Areas.

- (1) Street paving, curbs, gutters and sidewalks shall not be required of new development. Minimum City standards for all-weather access shall be provided. An engineering analysis shall be required to determine how all-weather access will be provided for emergency vehicles. Surface material may consist of graded dirt, gravel, or asphaltic concrete to achieve the required standards.
- (2) On-street parking shall not be permitted in a designated trail.
- (3) Street trees shall not be required.
- (4) Fences. Non-view-obscuring fences, not to exceed five (5) feet in height, shall be permitted to be located within the twenty (20) foot front yard setback. Where a non-view-obscuring

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Page 4

fence is constructed within the twenty (20) foot front yard setback, and is five (5) feet in height, the applicant shall be required to landscape the frontage of their property along the property line that abuts the adjacent right-of-way. Block walls that are higher than three (3) feet six (6) inches shall not be permitted to be located within the twenty (20) foot front yard setback.

- b. Melody Ranch (Applicable only to the area bounded by Oak Orchard Road on the north, Oak Creek Avenue on the east, Placerita Creek on the south, and to a line approximately nine hundred ninety (990) feet from and parallel to Oak Creek Avenue on the west.) Melody Ranch is a permitted use in the RL zone, subject to the following: the primary land use shall include full service motion picture and television studios including facilities for production of feature films, television series, commercials, telethons, videos and all related facilities and audience participation. Incidental community activities and social events are permitted. Related office space and limited commercial retail sales, incidental to the primary use shall be permitted.

D. Commercial/Industrial Zonesⁱ

- a. Landscaping Requirements.
 - (1) Adequate buffering between residential and nonresidential areas shall be provided, in accordance with the provisions of this code;
 - (2) Street trees shall be required;
 - (3) Landscaped berms or other landscape treatment shall be used to screen the view of parking areas from the street; and
 - (4) Landscape plans shall incorporate twenty-four (24) inch box trees.
- b. Lot Orientation. Properties fronting on Lyons Avenue shall be oriented with their primary access on Lyons Avenue. Site orientation shall discourage use of Placerita Canyon Road as a primary access.

ⁱ Numbering and lettering of the Municipal Code is as shown on the City of Santa Clarita website, which appears to be incorrect. In addition to the issues presented in this correspondence, the Code must be revised for clarity to address this flaw.

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E. [Description of District Boundaries omitted]

Therefore, any development within the boundaries of Placerita Canyon **must comply with the above requirements, including that such development is required to maintain, preserve and enhance the rural and equestrian character of Placerita Canyon.** The remainder of the PCSSD Requirements are significantly vague and ambiguous. We therefore recommend and request that the Code requirements for the Special Standards District be revised and amended, so that the PCSSD standards have a more precise statement of their applicability and application to any future proposed development. (The PCSSD standards should also be revised to correct the faulty numbering system and eliminate confusion in citing to the Code.)

The problems with the present Code requirements for the Special Standards District are illustrated by the DEIR. While the DEIR contends that the Placerita Canyon Special Standards District will remain in place after adoption of the General Plan update, **the proposed zoning and other changes within the District area are completely inconsistent with maintaining a rural and equestrian character**, as discussed below. The proposed changes therefore specifically threaten to allow uses which would completely destroy the rural character of the area.

Presently, the PCSSD is zoned almost entirely "RL," or Residential Low Density, which zone is intended for single-family detached homes at a density of **up to two and two-tenths (2.2) dwelling units per gross acre**. The purpose of such zone and the similar "very low" residential zone is to **permit the rural character of a number of existing neighborhoods to be maintained**, along with the **keeping of horses and related animals as an accessory use**. Santa Clarita Municipal Code §§17.11.020(D); 17.15.010.

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Also within the PCSSD is a small northwest section that is zoned "BP (PD)," or Business Park Zone with Planned Development Overlay Zone. The Business Park Zone contemplates clean industry, offices related to industrial usage, research and development, and limited commercial, and warehousing uses, including the provision of employee recreation opportunities. Development in campus-like settings and near major traffic corridors is anticipated. Industrial activities which have a retailing or wholesaling function that is related to industrial activities are permitted.

Finally, there is a strip of land running along the southeastern edge of the Business Park area which is zoned "OS" for Open Space, which is believed to be an easement owned by the Metropolitan Water District of Southern California ("MWD Easement"), together with a southern pocket zoned "PE," or Private Education.

Based on the DEIR, the proposed zoning changes to the PCSSD area are considerable. The PCSSD is located within the future North Newhall Specific Plan ("NNSP") area, which the General Plan update proposes to designate as a Mixed-Use Neighborhood ("MXN") for a much "broader and more comprehensive planning approach." According to the DEIR, the mixed-use category includes commercial retail, office, and service uses intermingled

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with higher density residential uses, within a master-planned complex (consisting of one or more buildings) designed to ensure that residents are not adversely impacted by commercial operations or traffic, and that businesses benefit from the proximity of customers living nearby.

The MXN designation conflicts with the PCSSD standards and is therefore improper as a zoning classification for the area.

The Land Use Element describes the Mixed Use designation as providing opportunities for the **coordinated development of urban villages and corridors** that offer a diverse range of complementary land uses, in appropriate locations throughout the planning area that are **served by public transit**, and in proximity to supportive uses and services. As is undisputed, the PCSSD promotes equestrian uses, which is hardly consistent with public transportation. Likewise, the "rural" character cannot co-exist with "urban villages and corridors."

Very importantly, the MXN designation, which is proposed to apply to the PCSSD, is blatantly contradictory to the PCSSD, as it includes allowable residential densities ranging from **a minimum of six (6) to a maximum of fifty (50) dwelling units per acre**, and the maximum floor area ratio (FAR) for non-residential uses shall range from .5 to 3.0, depending on the location of the mixed-use project, as described below:

Mixed-use development in these areas will be encouraged in order to create neighborhoods that integrate residential uses with complementary commercial services, including retail and office uses. Mixed-use neighborhoods should be designed in consideration of surrounding development patterns, proximity to public transit, providing roadway and trail linkages to adjacent development where appropriate. Non-residential uses consistent with this district include those in the Neighborhood Commercial (CN) and Community Commercial (CC) districts. The residential density range in mixed-use neighborhoods shall be a minimum of six (6) to a maximum of eighteen (18) dwelling units per acre, and maximum floor area ratio for the non-residential portion of the development shall be .5. Building heights shall not exceed 50 feet.

The **Neighborhood Commercial (CN)** designation provides for small neighborhood commercial districts that serve the short-term needs of residents in the immediate area. Allowable uses in this designation include supermarkets; drug stores; restaurants; personal services; repair services; light automotive services; day care centers; and other local-serving shops and services for neighborhood residents. Neighborhood commercial centers should be integrated into surrounding neighborhoods with appropriate screening, buffering, and pedestrian access. More intensive uses that are incompatible with adjacent neighborhoods, such as bars and nightclubs, heavy automobile repair, and businesses with outdoor operations or storage, are not appropriate in this designation. Coverage of the development site by buildings shall not exceed 75 percent, except as otherwise permitted by the reviewing authority pursuant to discretionary review as prescribed by the Unified Development Code. Allowable uses shall have a maximum

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Page 7

FAR of 1.0. Specific allowable uses and development standards shall be determined by the underlying zoning designation.

The **Community Commercial (CC)** designation is intended for businesses providing retail and service uses which primarily serve the local market. Representative uses include restaurants, clothing stores, hardware and auto parts stores, grocery markets, pharmacies, banks and financial services, specialty retail, theaters and nightclubs, day care centers, and medical services. These areas are typically located along arterial streets or at the intersections of high traffic corridors. Coverage of the development site by buildings shall not exceed 80 percent, except as otherwise permitted by the reviewing authority pursuant to discretionary review as prescribed by the Unified Development Code.

Projects in mixed-use areas are purported to be subject to design standards and development characteristics as evaluated in their neighborhood and regional context, and are required to preserve the character of existing residential neighborhoods and provide adequate buffer and transition. [See, DEIR, Land Use Element, pg. L-61] In the case of the Placerita Canyon Special Standards District, the vast majority of which is residential, any future proposed project must preserve the character of a rural and equestrian environment. **The proposed Mixed-Use designation which includes extensive commercial uses cannot possibly preserve the rural and equestrian character of the PCSSD which is required by the Municipal Code.** Significant other inconsistencies also exist between the PCSSD requirements and the proposed zoning designation in the General Plan update.

As currently proposed, the General Plan update would change the District from mostly residential, in which the allowable density is 2.2 dwelling units per acre, to residential density ranging from a minimum of 6 to a maximum of 18 dwelling units per acre. This is unacceptable, both legally and factually. It also appears that the proposed MXN designation will allow commercial uses in areas of the PCSSD which are already currently zoned residential. Such a substantive change is not even addressed in the DEIR being circulated.

The problem begins with the improper attempt to re-designate the entirety of the PCSSD area as Mixed-Use, rather than maintaining the current residential, low density, designation which exists in the area to the northeast of the MWD Easement.

PCPOA may be amenable to specific non-residential uses within the PCSSD area, so long as those uses are specific, and limited, and are confined to locations which will not interfere with existing areas of residential, rural and equestrian character, and do not interfere or impede with the already-impacted traffic conditions in the area. Further, any uses within the current Business Park/Planned Development Overlay must be explored to more precisely define the proposed uses, densities, and other standards which will apply to such area following implementation of the General Plan update, and they must be consistent with the PCSSD.

To address the issues and concerns referenced herein, we propose that the geographical area within the boundaries of the Placerita Canyon Special Standards District, as described in

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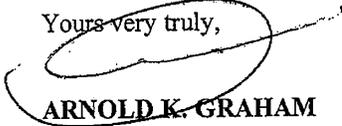
City of Santa Clarita Planning Commission
February 18, 2011
Page 8

§17.16.080(E) of the Santa Clarita Municipal Code, be given separate zoning designations, including a Mixed Use – Placerita Canyon or “MX-PC” for the area to the southwest of the MWD Easement, which area is currently zoned “Business Park.” Such zoning designation would allow limited commercial uses and specify allowed densities which properly transition and buffer the residential communities in Placerita Canyon, as required both by the proposed General Plan and by the Municipal Code. There is also no sense or reason for the area to the northeast of the MWD Easement to allow commercial uses, which would be expressly inconsistent with and thwart the purposes of the Special Standards District.

In sum, the proposed General Plan update substantively ignores both the Municipal Code and the PCSSD. Any use of the land area within the PCSSD must be consistent with the Special Standards District standards. The proposed Mixed-Use Neighborhood designation is completely inconsistent with such character and therefore contrary to the City’s Code and the PCSSD.

We hereby request a meeting between the City Planning Commission and PCPOA representatives to discuss the issues raised in this correspondence. Please immediately advise when such a meeting can take place prior to the March 1, 2011 hearing.

Yours very truly,


ARNOLD K. GRAHAM

AKG/go

cc: *See Attached Proof of Service and Service List.*

1

PROOF OF SERVICE BY ACE MESSENGER

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

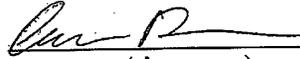
I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action; my business address is 500 N. Brand Blvd., Suite 1030, Glendale, California 91203.

On February 18, 2011, I served the foregoing document described as **CORRESPONDENCE DATED FEBRUARY 18, 2011** on the interested parties in this action by **personally delivering** a true copy thereof enclosed in a sealed envelope addressed as follows:

SEE ATTACHED SERVICE LIST

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on February 18, 2011, at Glendale, California.



(sign name)

David Bechasa

(Print name)

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Letter No. D36

Letter from Graham • Vaage, February 18, 2011

Response 1

The commenter's statements focused on the negative effects of the General Plan update will have on the Placerita Canyon and how the zoning district for the Placerita Canyon Special Standards District is inconsistent with §17.16.080 of the Santa Clarita Municipal Code. The OVOV General Plan does not amend the Placerita Canyon Special Standard District. Only under consideration in the Draft EIR, is the OVOV general Plan. The commenter states that

While the DEIR contends that the Placerita Canyon Special Standards District will remain in place after adoption of the General Plan update, the proposed zoning and other changes within the District are completely inconsistent with maintain a rural and equestrian character.

The commenter is incorrect in that the General Plan update is not considering a zone change at this time. There are no zone changes associated in the proposed Draft EIR. The commenter further does not believe that the MNX designation for Placerita Canyon is appropriate due to a higher density when compared to other land uses in the Placerita Canyon area.

The commenter further states that the change in designation to MNX was not considered in the Draft EIR. The commenter is incorrect. The Draft Program EIR, considered all general plan designation changes and the environmental consequences of proposed changes. These changes were analyzed at a Programmatic level in the Draft EIR and taken into consideration in the traffic study, and subsequently to the Air Quality, Global Climate Change and Noise sections from which the traffic study is used to analyze impacts.

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COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

February 18, 2011

Mr. Jason Smisko
Senior Planner
City of Santa Clarita
23920 Valencia Blvd, Suite 300
Santa Clarita, CA 91355-2196

Dear Mr. Smisko:

I have the following comments and suggested mitigation measures regarding Santa Clarita's One Valley One Vision, Joint Valleywide General Plan update EIR that I would like to see addressed and incorporated into the revised EIR.

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In terms of analysis and conclusion, it appears that the EIR compares the OVOV Plan with the Existing General Plan rather than a comparison of OVOV to existing conditions. For example, on page ES-1, it says "the OVOV General Plan proposes to increase the amount of residential units by 1,930 over the buildout of the City... when compared to the City's existing General Plan". There is no mention made in the Executive Summary of the increase in residential units versus Existing Conditions. This approach is contrary to CEQA requirements and misleads readers into thinking that conditions under OVOV will be better than existing conditions. Furthermore, Plan to Plan analysis sections are shown on pages 3.2.28, .51, .58, .65, .69, .74, .76, .84, and 90 but there are no sections containing analysis of Existing Conditions to the OVOV Plan and little if any discussion regarding how the existing conditions are altered by OVOV.

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The discussion of Alternatives Considered but Rejected is also flawed. For example, Page ES-8 and 9 discuss Alternatives Considered but Rejected. One of these, "Designate Currently Undeveloped Properties as Open Space" indicates that the alternative was rejected because it could lead to spot zoning which creates uses different and incompatible with adjacent uses or the existing land use pattern in the area and that it would be inconsistent with the housing Element which would preclude some affordable housing opportunities. It should be noted that three of the "Village" locations (Vista Canyon, North Newhall and Smiser) create uses and have densities that are extremely different than the adjacent uses (which are rural and equestrian in two cases) and existing land use patterns. Furthermore, the commentary regarding potential for revenue losses to the City is not germane to the EIR. Lastly, this alternative does not affect the Housing Element since the Housing Element does not require affordable housing (inclusionary housing) but only promotes it.

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Another alternative rejected was "Increase Densities in Higher Density Corridor Areas and Decrease Densities in Lower Density Designated Areas". This approach would restrict development in less dense communities and encourage additional growth within

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other denser communities and the EIR concludes that this could substantially interfere with the intended character of individual communities, and thus conflict with current and historical development patterns within the Planning Area. This argument is nonsensical, especially when page ES-2 of the EIR says that "by locating higher density in transit hub areas and along transit corridors, fewer vehicle trips are made". The fact is that transit is most effective along high density corridors that can generate the volumes necessary to achieve frequent and extended service. The OVOV Plan does not effectively create this corridor density but rather has several isolated pockets of density scattered throughout the City (in two cases directly next to rural equestrian communities), and none of them are near the existing job centers. It seems that the locations for the dense Villages are where developers propose them rather than where they make the most sense from a planning perspective. This alternative from a planning standpoint should be examined in much more depth and from a good planning standpoint is probably the preferred alternative.

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It is troubling that on February 15, 2011, the Planning Commission met to approve (as Planning Staff recommended) the Vista Canyon Ranch development, the first approval of a "Village" as promoted under OVOV. This Village is located on the east side of Santa Clarita, an area desperately needing jobs since it has no job centers of note. Terms of this approval allowed a residential zone overlay that would convert 250,000 square feet of planned commercial space to 233 additional residential units. The developer representative indicated that this conversion would happen if there was no demand for the commercial space (There is currently a 30% vacancy rate in SCV office space). With this anticipated conversion, approximately 2,800 jobs would be created when 2,648 jobs would be needed just to satisfy the 2/1 jobs housing goal for just these new residential units. Even though there will be significant housing growth in this part of the SCV, the fact that the Planners and Commission did not adhere to greater job growth requirements is an early indication that the mitigation measures and policies are just window dressing needed to sell OVOV to the public and regulatory agencies.

9

Policy Inconsistencies with Application of Land Use Under OVOV

There are also a great number of inconsistencies between Policies and the actual application of land uses in OVOV. Several examples of these inconsistencies are demonstrated on Table ES-1.

- Section 3.1 indicates that the proposed General Plan's goals, objectives and policies protect and designate areas of natural environmental importance such as the Santa Clara River floodplain, local SEAs, and rivers, streams, and associated tributaries throughout the City's planning Area as Open Space or Non-Urban Land Use designations and that the OVOV Plan would not conflict with these land use plans. The first Village, currently on the Planning Commission docket is Vista Canyon Ranch which is located primarily in the existing Santa Clara River floodplain on land which is currently designated as a SEA. The North Newhall project is also adjacent to a creek. This obviously conflicts with the goals, objectives and policies of OVOV.
- Section 3.2 of Table ES-1 indicates that the General Plan would promote denser, transit oriented development in areas where transit use is already high. High is not defined and the EIR should note the actual transit use in these areas, specifically that existing transit use accounts for less than 1% (one percent) of vehicle trips. This section also concludes that traffic conditions will improve by only looking at five

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existing LOS F segments rather than assessing all of the roads in the study area. It should be noted that when all of the roads are considered (and assuming the best case that all planned roads and improvements are built which is highly unlikely), principal intersection quality decreases by 1.5 to 2 grades, freeway quality decreases by 1.33 to 2.3 grades and roadway segment quality decreases by half a grade. The EIR discussion should reflect that the I-5 and SR-14 are at failing levels during peak flows. Somehow the EIR concludes this obvious and substantial lowering in roadway quality which occurs even after all mitigation measures are implemented is insignificant.

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- Section 3.2 also indicates that the policies seek to create a unified and well-maintained bikeway system, which includes connection of the gaps in the existing system and that the General Plan also reduces as opposed to cause hazards and barriers to pedestrians and bicyclists. This statement ignores the fact that bikeways are being eliminated to widen roads, that the roadway widths necessary under OVOV will create hazards and barriers to both pedestrians and bicyclists and that Class III bike routes are designated for streets that have more than 10,000 vehicles per day which is not recommended.

12

- Section 3.4 confuses readers by indicating that the “General Plan and Area Plan policies would reduce GHG emissions” but don’t indicate what they would be reduced in comparison to. Additionally, most of the mitigation measures identified are not requirements per se but rather discretionary measures left up to Planning Agencies to approve.

13

- Section 3.11 – Human Made Hazards contains no discussion of the High Pressure Gas lines that cross the Plan area. There should be a discussion of this particular hazard, especially after the San Bruno gas pipeline failure and the fact that one of the proposed Villages is adjacent to a High Pressure Gas pipeline.

14

- Section 3.12-1 indicates that the City shall prohibit alteration of floodways and channelization unless alternative methods of flood control are found to be technically, economically and practicably infeasible. It should be noted that the Vista Canyon Ranch Village plans on using “streambank stabilization” – essentially channelization with the import of 500,000 cubic yards of fill to remove the property from the 100 year flood zone. There should be a further definition of what is considered “channelization” versus “streambank stabilization”.

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- Policy 3.13-8 requires the use of low-flow fixtures but Policy 3.13-14 only promotes the use of low-flow fixtures. Which is it?

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- Impact 3.15 discusses Education. It indicates that in 2008 there were 149,669 students and that the design capacity was only 54,844 students and that with the General Plan goals, objectives and policies and Senate Bill 50 impacts would be less than significant. It should be noted that the State has not lived up to their funding obligations for our local schools, that supplementary bond measures have been necessary both at the elementary and high school levels and that without passage of additional local bond measures, there could be significant additional impacts on the schools under OVOV.

17

- Police Protection also appears to be erroneous in identifying that there is one officer per 439 residents in the City's Planning Area. There are 177,000 residents in Santa Clarita per the City website so if there are 171 officers, there would be 1 officer per 1,035 residents, worse than the standard of 1 per 1,000 residents.

18

- Section 3.15 shows the projected population at 275,000. Section 3.16 indicates that the City's General Plan requires 5 acres of parkland per 1,000 residents or a total of 1375 acres in total. Currently, the City only has 246 acres so an additional 1129 acres would be needed versus the 916 acres reported under Section 3.16. It should be noted that there are no parklands identified under the Land Use element or on the Land Use Maps, even though this is a significant amount of acreage that must be somehow accounted for. This must be addressed as part of this Plan.

19

- Section 3.19 shows the Plan includes a 2/1 jobs/housing balance and tells us that 20,000 jobs will be created in the next five years. This is in spite of a job loss from January 2010 to January of 2010 of 3,654 jobs. The City staff reported that there were only 750 new jobs created in 2010. There appears to be a significant disconnect between promised job growth and what OVOV assumes and promises to deliver. There is no analysis in the Plan that discusses what happens if this job growth does not occur, the impact on traffic and greenhouse gases, nor is there a discussion of t happens if the City allows residential overlay's as discussed above.

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Proposed Additional Mitigation Measures

- **Require Traffic Levels to be at the "C" Level of Service in the Existing Plan**

There is no discussion or evaluation of why the desired Level of Service is being lowered from "C" described as stable operations with average travel speeds of about 50% of free flow speeds where the ability to maneuver and change lanes in midblock locations and includes longer queues to "E" described as significant delays and average travel speeds of 33% or less of free flow speeds. It is apparent that the City cannot live up to the "C" LOS as there are several intersections at "F" levels today. If conditions exist today that are worse than the current Plan goals, how can depend on the City actually delivering even an "E" LOS? If stable traffic levels can not be maintained, there is too much volume for the roads and densities must be reduced accordingly.

21

- **If density increases are granted on particular projects, they must be reduced on other projects or parcels so that there is no net density gain.**

In order for this plan to work, both the City and County rely upon each other to maintain densities shown under their General Plans. In the past, General Plan amendments were granted increasing densities at will, in spite of the inconsistency with the General Plan. This mitigation measure would provide a mechanism to ensure that growth is consistent with the General Plan. In order to increase densities on a parcel, an owner would need to "buy" density rights from another landowner – much like air rights.

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- **Condition residential growth approval on job growth in the SCV.**

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There are several planning approaches that are being used to minimize impacts from growth under the plan. One of these is a 2/1 jobs/housing ratio which is used to minimize traffic into, out of and within the SCV. The circulation element utilizes this approach and shows a 1.9 mile reduction in average trip length which reduces impacts to roads and intersections and greenhouse gases. In order to adhere to the plan assumptions and not impact pollution, roads and highways more than planned, this job growth must take place before or as new residential units are built. To do otherwise circumvents the intent of the planning precepts.

23

- **Require funding plans and feasibility analysis for infrastructure requirements including roads, schools, water, power, fire, library and law enforcement services.**

While it is easy to draw lines on maps for roads and postulate widening projects, it is another thing to be able to actually get them built. Require that the required infrastructure is feasible and economically viable before approving the plan. If it isn't, densities must be adjusted accordingly.

24

- **Do not approve tract map extensions.**

There are a number of tract maps approved for developments that are inconsistent with today's planning approaches. If a developer has not seriously pursued implementing a plan that is now outdated, it should not be extended.

25

- **Change maps to reflect what can be built given mitigation policies in place.**

One of the planning goals is to preserve groundwater recharge areas. In spite of that goal, there are zoning uses and dense developments being planned that depend on stabilizing and raising stream banks in order to raise elevations and remove land from FEMA designated floodplains. These floodplains are some of the last and best water recharge areas remaining in the SCV. Furthermore river areas are designated by policy as being important open space areas and wildlife corridors under the Plan but the land uses shown under the plan appear to give no import to those policies.

26

- **Require inclusionary housing.**

One of the main reasons for the amount of traffic and congestion on SR 14 and I-5 is the imbalance between the types of jobs provided locally and the cost of housing. Employment and Wage data provided by the City Economic Development Manager shows the average wage in the City to be only \$40,000. These income levels do not allow for workers to afford housing locally. As a result workers commute from the San Fernando Valley and Antelope Valley to jobs in the SCV and SCV residents commute to jobs in the greater Los Angeles area outside of the SCV. Without an outright requirement for affordable housing, this problem will not be addressed and it brings into question the assumption that average trip length can be reduced by 1.9 miles.

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- **Extend lane widening on SR 14 past Placerita to Soledad Canyon Road.**

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The Plan only calls for northbound widening to the bottom of the hill at Placerita Canyon. Currently, traffic backs up due to the inability of truck traffic to hold speeds on the grade from Placerita to Golden Valley. Additionally, traffic frequently backs up at Sand Canyon due to congestion further north on SR-14.

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- **Allow unprotected left turns.** Almost all intersections have signals that only allow left turns on an arrow. This results in motorists waiting longer to turn left than they may need to, contributing to air pollution and traffic as light timing must be extended to allow all the vehicles in the left turn lanes to make the action. Allowing unprotected turns will allow those turns when the intersection is clear.
- **Require new development to pay their proportionate share for extensions of recycled water mains to their properties if use of recycled water is a permit condition.**

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Circulation Element EIR General Comments

It is clear that the focus of the EIR discussion is a comparison of the Current Plan against the OVOV Plan. As previously discussed, the EIR analysis and conclusions appear to be based on this comparison rather than an analysis versus the existing conditions as required under CEQA. The EIR needs to clearly discuss existing conditions versus the proposed OVOV Plan. While the EIR does in most cases provide underlying information regarding the current conditions (which is often side by side with the Current Plan and not the OVOV Plan making comparisons difficult), the analysis and discussion of impacts and mitigation efforts versus existing conditions is generally non-existent or severely lacking.

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Furthermore, the EIR did not capture most of the comments that arose from the EIR scoping meeting and subsequent correspondence to the City regarding the preparation of the EIR. For example, Caltrans in their 9-15-08 letter to the City (included in Appendix 1 of the EIR) confirmed the current and future congestion on SR-14 and I-5 and recommended that the City and County consider funding programs toward regional improvements for these roads. The response in the EIR was "Policy C1.3.4 and .7 continue to coordinate with Caltrans on circulation and land use decisions that could affect I-5, and SR-14 (Policy C1.3.4) to increase capacity and improve operations on these roadways". It is unclear what is included in the scope of Policy C2.6.1. These policies just won't assure the roadway widening shown under the Plan and included as a given under the EIR and the EIR does discuss or address the need for a funding plan.

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Circulation Element Impacts

Page 3.2-2 of the EIR concludes that "with the implementation of mitigation measures, potential traffic and circulation impacts would be less than significant." The City does not identify what they would consider significant but the County does. Page 3.2.-25 of the County EIR identifies thresholds of significance as well as County standards for traffic increases that are "substantial". An analysis of the documents demonstrates several extremely significant unmitigated impacts that are contrary to this conclusion. Specifically:

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- Items that would be considered significant impacts are identified on page 3.2-25 which includes "Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections". Page 3.2.25 of the LA County EIR contains Los Angeles County Department of Public Works Traffic Impact Analysis Guidelines which provide ICU or V/C percentage change ratios that would be deemed substantial in relation to the existing traffic load and capacity.
 - There were 114 existing roadway segments analyzed in the EIR and Traffic Impact Analysis. Of these, 29/114 (25%) of the total existing roads had substantial increases with final LOS's of C or lower, and another 72 (which included using a 4 percent change or more on LOS A and B roads also) of the 114 (63%) had percentage changes greater than the amounts identified in the County Guidelines as a "substantial increase".
 - Furthermore, there were 19 existing Principal Intersections analyzed on page 3.2-53. Every one of these intersections had ICU's that were substantially worse under the County Department of Public Works guidelines with all of the OVOV planned roadways built. The data in Table 3.2-10 shows that the AM ICU average increases from 62.42 to 79.05 and the PM ICU increases from 68.26 to 90.56 even with all planned roadways built. These increases are at least 8 times greater than the amount deemed substantial by the County.
 - Table 3.2-13 shows Level of Service for SR-14 and I-5. Levels of Service declines significantly from Existing Conditions, even with all planned improvements built. Most segments in peak flow directions decline 2 LOS grades and in non-peak directions they decline 1 LOS. All of the SR-14 segments in peak directions are at "F" LOS's at peak hours but one. These changes are again significant and it should be noted that SR-14 is at an "F" LOS from the I-5 interchange to Agua Dulce in peak directions and hours.
 - Also, under OVOV there is a 121% increase in trip ends.
 - Page 2-19 of the Austin Foust Traffic Study that supports the EIR includes the assumption that Average Trip Length is reduced by 1.9 miles. This is an extremely critical assumption since it ultimately results in Vehicle Miles Traveled only increasing by 68% even though there are 98% more trips generated under the Plan. There is no quantitative data or studies cited supporting this critical assumption. This assumption change also significantly impacts the Greenhouse Gas calculations.

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Even with the best case where all planned roadways are built out and improved, the simple fact is that the data demonstrates significant adverse impacts to traffic and road conditions when the "best case" Highway Plan is compared to existing conditions. There was no analysis of what happens to conditions if all roadways are not built. Furthermore, there is no analysis of what happens to the most critical corridor into and out of the SCV, the Newhall Pass between the I-5 and SR-14 interchange and the I-5 and I-405 interchange. During the EIR scoping process,

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both of these analyses were requested but it appears that Impact Sciences chose to ignore those requests.

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- It appears that for both the City and County, the desired Level of Service has changed. In the prior General Plan, a "C" Level of Service was desired. Under the OVOV Plan, an "E" level of service is considered acceptable and it is stated that an "F" is allowable under some circumstances. There is no analysis in the EIR or Traffic Impact Analysis supporting or evaluating the impact of this change. Rather it is taken as a given. An "E" Level of Service characterized as having "significant delays and average travel speeds of 33% or less of the Free Flow speed. This reduction in service levels, in what is essentially a suburban area where long distances must often be travelled is especially troublesome and will contribute significantly to GHG emissions. Regardless what the stated "goal" is for planning purposes, ignoring these impacts versus existing conditions does not mean the changes are not significant.

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- The Plan would result in inadequate emergency access - an item which would be considered a significant impact as addressed on page 3.2.72 of the EIR. There are two hospitals serving the SCV – Henry Mayo located on McBean Parkway and Holy Cross located in Mission Hills.

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- Above we discussed how SR-14 is at an F level of service from Agua Dulce to the I-5 merge and how traffic south of that was not analyzed but is most likely also at an F level of service and will be worse in the future as vehicle counts increase significantly under OVOV. Because of these conditions, access to Holy Cross in Mission Hills will be extremely poor.

- Likewise some of the most critical streets required to access Henry Mayo Hospital are severely impacted under the OVOV plan, even with all OVOV roads built. This includes: McBean South of Scott (LOS F), McBean South of Valencia (LOS E), McBean North of Orchard (LOS C), Orchard Village South of McBean (LOS E), Orchard Village South of Wiley (LOS D), Lyons East of Orchard Village (LOS E), Soledad East of Bouquet (LOS D), Bouquet West of Haskell (LOS E), Bouquet East of Seco (LOS E), Bouquet South of Newhall Ranch (LOS F), and Bouquet North of Magic Mountain (LOS E). While the potential for another hospital exists in the SCV, the prospect has indicated a desire to be in the west side of the SCV which will not improve this situation.

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Because of the poor emergency access, especially from the east side of the SCV, prompt medical care will not be available for extended periods. Furthermore, help during major emergency conditions comes from outside the SCV and must transit the Newhall Pass and SR-14 and/or I-5 since it is most commonly coming from the south. This help, when most needed in times of urgent need, will be unable to arrive promptly. The only policies addressing this impact appear to be C2.5.1-4 and the proposed policies do not deal with the underlying problem of the critically poor Levels of Service found on the major roadways and highways and how those affect emergency services.

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- The Plan will create hazards and barriers for pedestrians and bicyclists which is an item that would be considered a significant impact addressed on page 3.2.31 of the City Plan.

- The City bus system does not provide service to enough locations or have enough frequency to be viable. For example a trip across the SCV from Canyon Country to the Valencia Industrial Center will take one hour. It takes approximately 2 hours for my daughter to take a bus from her high school to the stop nearest our house and walk home. While additional service could be provided, it would not be economic.

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- The Highway Plan required by OVOV eliminates 5 segments of bike lanes with no replacements shown. This severely limits the connectivity and viability of the bikeway system. Furthermore, there are significant gaps in the trail system.

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- The width of the streets required under the plan creates hazards and barriers for both pedestrians and bicyclists. The Austin Foust report identified 92 roadway segments at buildout. Of those, 48 will be 6 lane roads and 11 will be eight lane roads. 6 lane roads will be at least 8 lanes at intersections because of dedicated turn lanes and 8 lane roads will be at least 10 lanes. Therefore, pedestrians and bicyclists will be required to cross either 8 lanes or 10 lanes at 64% of the intersections identified in the report. The width of these intersections is at least 138'. Having a 2-3' pedestrian island in the middle of these intersections is not what I would consider to be pedestrian or bicycle friendly.

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- The City proposes using Class III bike lanes on a number of roads that have vehicle counts exceeding 10,000 vehicles per day. This will be hazardous to bicyclists given the high number of vehicles planned for these roads.

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Circulation Element Mitigation Measures

The EIR does not provide context regarding the potential effectiveness of the mitigation measures proposed. The mitigation measures appear to be merely window dressing to make OVOV appear to be better than it will be in actuality. The Santa Clarita Valley has a desert like climate that often discourages activities like bicycling and walking – whether because of the over 100 degree days in the summer or the potential 40 degree days in the winter or the 40 to 60 mile per hour winds in the fall and winter. There is more often than not considerable geographic distance between destinations such as housing, upper level schools, shopping, entertainment and job centers.

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A Cross Valley connector was nearly completed this past year (the bridge widening over SR-14 is still pending) at a cost of \$245,000,000, taking ten years to complete. New roadways need to overcome obstacles like the Santa Clara River, train tracks, high pressure gas lines, So Cal Edison high voltage power line right of ways, the main aqueduct feeding the City of Los Angeles, currently contaminated land under DHS cleanup supervision, significant topography and seismic hazards. For example, one of the planned roads will bisect existing oil fields, contaminated properties and Santa

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Clarita's Central Park. These challenges add significantly to project costs and schedules and bring into question the feasibility of implementing the complete OVOV highway plan, even within thirty years. It is critical that a funding plan be developed as part of OVOV. If the economic costs are known, it can then be determined if the mitigation measures are truly practical and feasible. If they are not, the OVOV plan should be revisited.

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There is no mention or discussion regarding the number of people who currently utilize public transit, walk or bicycle to work. While not mentioned in the report, Santa Clarita Transit reports 3.7 million trips per year (10,137 per day) and another 2,000 trips per day are taken on Metrolink. This represents an insignificant .82% (point eight two percent) of the daily trips generated in the SCV $((10,137+2,000)/1,487,994)$. Perhaps another .18% of the trips are accomplished on bicycles and by walking, generating a total of 1% of non-car related trips. Even if usage of alternative transportation is tripled, it will make little if any appreciable reduction in the low Levels of Service being generated by OVOV. Again, there is no discussion of mitigation measure effectiveness or ineffectiveness, only the conclusion that the mitigation measures will lessen all the significant impacts to be insignificant.

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One of the major assumptions in the plan is that area will be able to deliver on a 2/1 jobs/housing ratio going forward. The goal of having a 2/1 jobs housing balance should be lauded. However, the difficulty of achieving this goal must be addressed. There are currently between approximately 69,000 and 73,000 jobs in Santa Clarita. If population growth under this plan is 250,000 residents with 3.2 residents per household, there would be an additional 78,125 households built versus existing conditions. This translates into 156,250 new jobs – at least 208% more than today. To achieve this, job growth would need to average 5% for 15 years. This will most certainly be a challenge and it supports the need for inclusionary housing since half the new jobs will be in the retail and industrial sectors and currently the average local wage is only \$40,000 per year. This low average wage and lack of inclusionary housing is precisely why there is a reverse commute out of and into the SCV.

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Specific comments on the mitigation measures follow:

- **Policy C1.1. promotes an integrated, seamless transportation system.** While this is a great goal, the fact of the matter is that service on Metrolink has limited times and hours of operation and is only useful if the endpoint destination is nearby a train station on the route into Los Angeles. Try going to an evening Dodger game on the train – you can't. Furthermore, the local Santa Clarita Transit buses do not provide hours of operation that allow employees to work late or overtime hours, take an inordinate amount of time to cross the city to the job centers, do not provide access to large areas of the SCV and do not provide scheduling frequency to make them truly viable as an alternative to an automobile. For example, taking one of the main routes connecting the eastern part of the SCV with the job centers in the western SCV takes 45 minutes to go from the end of Shadow Pines in Canyon Country to the McBean transit center in the middle of the Valley. If you then need to go to the Valencia Industrial Center (one of the main job centers), add another 10-15 minutes. This is a trip that would typically take 20 to 25 minutes in a car. Additionally, the bus frequency ranges between 30 minutes and one hour. Except for the express routes, the only people who take the bus are those who have no alternative. This coupled with the fact that less than 1% of residents use transit minimizes the effectiveness of this mitigation measure. Additionally, one greenhouse

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gas calculator is indicating that in a major urban area like downtown Los Angeles, 55% of employees would take public or alternative means of transit to work, but only 1% will do so if the company is located in a suburban setting (<http://www.latimes.com/business/la-fi-green-buildings-20110118,0,315057.story?page=1>).

- **Policy C1.1.13 promotes mixed use development.** The sad reality is that most workers in the SCV are unable to afford housing here. While a 2/1 jobs housing goal is laudable, the reality is that many of the new jobs will continue to be in low paying fields. Industrial square footage growth is 124% and retail 139% versus existing conditions. Since there is no inclusionary housing requirement, there is no assurance that mixed use developments would provide the affordable housing that is needed by the workers in those mixed use developments. This affordability problem will only continue to contribute to the stream of traffic from the SCV to outlying areas including the Antelope Valley and the San Fernando Valley. Additionally, the handful of mixed use developments will not be within walking range of the majority of existing residents and all residents in the County portion of the Plan.
- **Policies promote walkable, bike friendly communities.** It should be noted that there is not a map of the bikeways and proposed bikeways contained in the Circulation component of the EIR or the traffic analysis. Additionally, 98 of the 114 (86%) existing roadway segments shown have more than 10,000 vehicles a day where striped bike lanes are recommended and Class III bike lanes are not advisable. It is not known if bike lanes can be accommodated on these streets, especially given right of way constraints and the addition of lanes and bus turnouts required under other mitigation measures. Under the OVOV plan, 233 of the 298 (78%) road segments shown will have more than 10,000 vehicles per day. Without at a minimum striped bike lanes, riding on these streets will be hazardous and not at all friendly. There is also a lack of connectivity for the existing bike lanes and paths and particularly important segments down Bouquet Canyon Road and Soledad Canyon will be eliminated in order to accommodate more vehicle lanes.

Issues affecting pedestrians were previously discussed and crossing intersections will be daunting for them, especially when drivers will be impatient due to the "E" Levels of Service that are considered acceptable under OVOV.

- **Policy C2.6.1 indicates that new development will pay its' share of the costs.** It should be noted that there is no funding plan that addresses the cost of all the improvements and mitigation measures required by OVOV. These would include but not be limited by new roads and roadway improvements, bridges, traffic monitoring and control systems, expansion of the I-5 and SR-14, parking for public transit, subsidies for public transit, procurement of rights of way required for road widening and bus turnouts, the cost of improved transit services, bikeway maintenance, etc. It is unclear how a Policy can be developed and utilized in this plan without knowing what it could cost and evaluating whether that price tag is even feasible or if there are less costly alternatives that should be pursued in other areas that have better economic paybacks. Additionally this policy is undermined by Policies C5.4.2-5.4.3 which indicates that the County will work with local, regional, state and federal agencies to identify funding alternatives. Why would this be necessary if the new development is paying its share of the costs?

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- **Policies are “promote” and “encourage” based.** For example, in Objective C3.1, 8 of the 9 policies are promote or encourage based rather than required. As a result, since actions or mitigations by potentially affected entities are optional, there is no assurance impacts will be mitigated.
- **Policies 1.3.1 and 1.3.4 involve continuing coordination with MTA and Caltrans to increase capacity and improve operations and page 3.2.67 concludes that “Adherence to the Area Plan Policies would ensure the planned improvements to the I-5 and SR-14 freeways would be implemented”.** It should be noted that the Planners, County and City of Santa Clarita do not have absolute control over entities like Caltrans and the MTA. These entities receive their marching orders from politicians that are not beholden to what OVOV says. Furthermore, given the budget crisis at all levels of government, it is especially uncertain that these improvements are guaranteed and ensured. This was demonstrated by Caltrans indicating in their OVOV response that the City and County develop a mechanism to fund these improvements. Unless the City of Santa Clarita and the County explicitly agree to pay for these roads and service improvements as part of this plan, a statement like “would ensure the planned improvements are implemented” is misleading.
- **Impact 3.2-5 discusses inadequate emergency access.** Policies C2.1.1 to C2.1.5 will do nothing to cure the shortcomings resulting from the poor Level of Service levels for routes to the hospitals. While Policy 2.2.9 will help somewhat, it won’t help if emergency vehicles are trying to come into or go out of the SCV. Policies 2.5.1 to 2.5.4 also don’t help with the Level of Service problem. Having two ways into and out of neighborhoods, good signage and visible street names will help emergency vehicles find a location but it will not help them get through LOS D, E and F streets, intersections and freeways nor speed them to the hospital.
- **Impact 3.2-7 indicates that “Implementation of the proposed Area Plan would not conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).”** It should be noted that there are inherent conflicts in the Plan. For example, the bikeway on Bouquet Canyon, a street that carries volumes ranging between 77,000 and 32,000 cars per day will be eliminated in order to add a lane for vehicles as will a portion of the bikeway along Soledad Canyon which carries at least 17,000 cars per day. There are also a large number of streets without striped bikeways that have more than 10,000 cars per day – for example Sand Canyon between Sierra Highway and Lost Canyon carries up to 25,000 cars per day. The County Plan (which the City should be coordinating with) indicates that, striped bikeways at a minimum should be provided on streets with 10,000 or more vehicles per day. Bike lane eliminations and a lack of suitable bike lanes in the plan conflicts with Policy C.1.8. Also, there is no needs analysis that shows major streets without striped bikeways.

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Policy C 5.1.5 indicates the bus turnouts will be located and designed to limit traffic obstruction and provide sufficient merging length. While this can be accommodated on new streets, there is no discussion in the Traffic Plan about what it will take to accomplish this, especially on streets like Soledad, Newhall Avenue, Lyons and Railroad Avenue where the entire right of way is used for the street and sidewalk and eminent domain must be exercised to make this happen. Will the City and County really eliminate a business in order to implement this policy?

Policy C5.1.4 indicates a bus stop will be provided within ¼ mile of residential neighborhoods. It should be noted that some of the residential neighborhoods can extend for miles from the nearest bus stop. The EIR should include an analysis regarding what proportion of the population will live within ¼ and ½ mile of bus stops in order to support the argument that alternative forms of transportation are viable under the Plan. The closest bus stop is 3.5 miles away from the furthest house in the canyon where I live. While this policy might help in planning new developments in the City of SCV, it won't help in the County areas due to the low densities and lack of bus routes serving the area.

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It appears as if a laundry list of policies has been thrown against Circulation impacts - many of which have dubious financial and operational feasibility and are out of the control of the County and City of Santa Clarita. These include a rail line from Ventura to Santa Clarita, an expansion of the Palmdale airport, seamless transportation systems, the high speed Orange Line transportation, Amtrack Service (without mention of where from and where it would go), and implementing a bus rapid transit for key transit corridors (on what right of way?).

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Even with SR-14 at an "F" LOS, the Austin Foust traffic plan shows traffic reductions on Sierra Highway, Soledad and Placerita Canyon – roads that parallel SR-14. Today when accidents, fires and other heavy traffic load days occur and in the future under OVOV, traffic increases to LOS "F" levels. This use of alternative roadways by commuters as is the common practice under horrid traffic conditions is not considered or shown in the Austin Foust data and as a result erroneously minimizes the impact to the community and arterial roads from the failing LOS on SR-14.

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In summary, I believe the OVOV Plan is deficient because of its inability to overcome one of the most visible, irritating, time wasting and pollution creating impacts from growth – terrible traffic conditions. When compared to existing conditions, the planned growth will adversely impact the entire area. I have not see any significant parameter that is improved versus existing conditions – be it pollution, water availability and prices, traffic, impact on schools and parks, open space, groundwater impact, etc.. While OVOV is a marginal improvement over the current Plan, the current Plan is deficient from the start and any comparison to it is like comparing the absolutely worst outcome with something that is only slightly better but still a failure.

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Please call if you have any questions or would like to discuss these points further.

Best regards,

Michael A. Naoum III

Letter No. D37

Letter from Michael Naoum, February 18, 2011

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The commenter stated that the EIR conclusion appears to be based on a comparison to the current plan rather than the existing plan and questioned the appropriateness of this approach. The comment is incorrect. Baseline to project analysis can be found in Table 3.2-6, Trip Generation – Existing vs. OVOV Buildout, Table 3.2-8, ADT V/C and LOS – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways), Table 3.2-10, ICU and LOS Summary for Principal Intersections – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways). Existing Plan to OVOV Plan comparison was provided to assist the public as to acknowledge the difference between the Plans which was an issue discussed during the Notice of Preparation process. The Executive Summary document is intended to be a “summary” and not all information contained within the Draft Program EIR can be included in the Executive Summary.

Response 3

The commenter states that in the Executive Summary, under the subsection “Alternatives Considered but Rejected” is flawed because it could lead to spot zoning would be inconsistent with the Housing Element by precluding some affordable housing opportunities. The commenter submits three development projects which he believes would have densities and land uses different than adjacent uses. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter also finds error with the discussion which states that the “alternative would preclude opportunities for development and consequently lead to substantial losses in revenue” and did not feel that it was germane to the EIR. According to *State CEQA Guidelines* Section 15126(f)(1) feasibility is a leading factors when considering suitability of Alternative for analysis:

Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives. (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553; see Save Our Residential Environment v. City of West Hollywood (1992) 9 Cal.App.4th 1745, 1753, fn. 1).

Feasibility factors include economic viability. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The comment stated that the Alternative would not affect the housing element as it does not require affordable housing but only promotes it. While it is true that the Housing Element only promotes and not mandates affordable housing, the alternative rejected would have removed properties that could have been used for affordable housing projects. Therefore, the City believes that the discussion and supportive reasoning is appropriate for the “Designate Currently Undeveloped Properties as Open Space” rejected alternative.

Response 6

The commenter stated concern with the reasoning behind the rejection of the alternative “Increase Densities in Higher Density Corridor Areas and Decrease Densities in Lower Density Areas” in that it will interfere with the intended character of individual communities. The commenter further states however, that page ES-2 of the Draft EIR states that by locating higher in transit hub areas and along transit corridors, fewer trips are made. As stated more fully on page ES-2: “This alternative involves increasing the development density of higher density areas and decreasing the development density in lower density areas. Under this alternative, the distribution of population density would be altered, but the total buildout population of the City’s Planning Area would not change. The purpose of this alternative would be to increase the acreage of open space in less dense, more rural areas of the City’s Planning Area by concentrating residential development and activity in areas that are already densely developed. This alternative was intended to create more open space areas and more wildlife corridors, thereby creating fewer biological impacts. However, this alternative would alter the character of the City’s Planning Area, which consists of several distinct communities separated by topography and other natural features. By restricting development in less dense communities and encouraging additional growth within other, denser communities, this alternative could substantially interfere with the intended character of individual communities, and thus conflict with current and historical development patterns within the City’s Planning Area. Consequently this alternative was rejected from consideration.”

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter contends that the OVOV plan does not create the desired corridor density but rather has isolated pocketed throughout the community and none of them near the existing job centers. Desired corridor density will be achieved with the village concept of the OVOV plan. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenter believes that the locations for the dense villages are proposed by villagers as to where they would make the most sense from a planning perspective. The commenter summarizes by stating that the Increase Densities in Higher Density Corridor Areas and Decrease Densities in Lower Density Areas” Alternative is probably the preferred alternative. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 9

The commenter discussed the action of the Planning Commission concerning action taken on the Vista Canyon project. The commenter stated that the Planners and Commission did not adhere to greater job growth requirements that the mitigation measures and policies are just window dressing to sell OVOV to the public and agencies. The commenter also stated that the Vista Canyon met the 2:1 jobs/housing goal of OVOV. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The commenter stated that the North Newhall project and the Vista Canyon projects conflict with the goals objectives and policies of OVOV. The commenter is referring to specific development projects, and not the OVOV Draft EIR. The comment raises issues that do not relate to any physical effect on the environment discussed in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter is quoting the Executive Summary Table, which summarizes project impacts and discussion. The commenter states that the EIR concludes that traffic will improve by only looking at five LOS F intersections. The commenter further states that principal intersection quality degrades by 1.5 to 2 grades and freeway quality decreases by 1.33 to 2.3 grades. The commenter states that the EIR discussion should state that the I-5 and SR-14 are at failing levels during peak flows and takes issue with the conclusion of less than significant impacts to traffic after mitigation.

Section ES—Executive Summary is exactly that—a summary. It is not intended to provide a completed and detailed discussion of any topic—particularly transportation/circulation which is the topic of the commenters discussion. Secondly, the commenter does not conclude how he concluded that principal intersection quality and freeway quality grades by certain percentages. We do not understand what the commenter means by the word “grades.” Consequently, no further response can be provided regarding this issue. Section 3.2, Transportation and Circulation Table 3.2-13 discusses freeway impact level of service project impacts when compared to OVOV and the existing General Plan. It is not reasonable to assume that all of the information contained within the body of the text would be included in the Executive Summary. No further response is required.

Response 12

The commenter states that the bikeways proposed will create hazards and barriers to pedestrians and bicyclists and that the Class III bike routes designated for streets that have more than 10,000 vehicles per day is not recommended.

There is considerable discussion within Section 3.2, Transportation and Circulation with regard to bikeways.

Section 3.2, Transportation and Circulation, page 3.2-25 states, “The Santa Clarita Valley’s interconnected network of bikeways provides residents with both recreational opportunities and options for reducing vehicle trips. Bikeways are classified into three categories based on their location and type. A Class I bikeway is an exclusive, two-way path for bicycles that is completely separated from a street or highway. Class II bike lanes are signed and striped one-way lanes on streets or highways, typically at the edge of the pavement. Bike lanes provide a designated space for bicyclists within the roadway right-of-way, which is especially important on streets with moderate or higher traffic volumes and speeds. Class III bike routes share the right-of-way with vehicles Class IV; they may be signed, but are not exclusively striped for use by cyclists. Although bike routes offer little benefit to cyclists on busy roadways, they can be used to guide cyclists through the street network. On any street carrying over 10,000 vehicles per day at speeds of 30 mph or higher, striped bike lanes are recommended over bike routes. In selecting routes

for bikeways that share the right-of-way with vehicles, design criteria include connectivity, traffic volumes, speeds, curb width, intersection protection, and the number of commercial driveways.”

The first bike paths built in the City generally followed the Santa Clara River and its tributaries. Newer paths have been developed which connect residential neighborhoods to the river paths. Bike paths exist in most neighborhoods, providing connections to the Santa Clarita Metrolink Station, several schools, businesses along Soledad Canyon Road and McBean Parkway, and to recreational opportunities along the rivers. Grade-separated undercrossings are generally provided where Class I bike paths cross major highways.

Section 3.2, Transportation and Circulation, page 3.2-30 states, “The City’s Non-Motorized Transportation Plan was adopted in June 2008. The Plan developed connected, safe, and convenient routes for cyclists and pedestrians. Policies and programs in the plan were designed to identify and prioritize bikeway needs; provide a plan for needed facilities and services; contribute to the quality of life through trail development; improve safety for cyclists and pedestrians; identify land use patterns that promote walking and cycling; improve access to transit; maximize funding opportunities for trails; and provide educational and incentive programs. The Non-Motorized Transportation Plan identified a need to accommodate on-street bicyclists through designation of bike lanes on arterials, wide curb lanes, loop detectors at signals, direct commuter routes, and protected intersection crossing locations. In addition, connections between residential areas and bikeways are needed to facilitate increased bicycle use for both recreational and commuting purposes. The Non-Motorized Transportation Plan identified the various needs for pedestrians, including sufficient crossing time at signalized intersection, visibility at crossings, continuity of walkways, adequate walkway width, removing obstructions in the walkway, and providing buffer or separation from travel lanes. The Plan also included a Safe Routes to Schools Program for three elementary schools.”

Page 3.2-85 summarizes OVOV bikeways policies as follows: “The proposed General Plan seeks to develop a unified and well-maintained bikeway system by adopting and implementing a coordinated master plan for bikeways for the Santa Clarita Valley (Goal C 6 and Objective C 6.1). The City would develop Class I bike paths linking neighborhoods to open space and activity areas (Policy C 6.1.1), provide striped Class II bike lanes within the right-of-way for bicycle commuters (Policy C 6.1.2), acquire right-of-way needed to complete the bicycle circulation system (Policy C 6.1.3), provide signage for Class III bike routes or designate alternative routes (Policy C 6.1.4), and plan for continuous bikeways to serve major destinations (Policy C 6.1.5).”

In no instance, is there any discussion that the provision of bikeways should come at the cost of safety. Nonetheless, the commenters comments regarding Class III bike trails. The comment only expresses the

opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 13

The commenter states that Section 3.4 is confusing to reader as it states that the “General Plan and Area Plan policies would reduce GHG emissions but don’t indicate what they would be reduce in comparison from. The commenter is merely quoting a phrase from the executive summary section of the EIR. We direct the commenter to the paragraph above the partial phrase quoted which states on page 3.4-1: “This section describes the science of the global climate change phenomenon; provides information on the evolving regulatory framework that addresses global climate change; quantifies existing greenhouse gas (GHG) emissions under the existing General Plan and Area Plan, and under the proposed General Plan and Area Plan; compares the proposed projects’ GHG emissions to existing emissions and emissions under the existing General Plan and Area Plan; and determines if the projects are consistent with state goals, strategies, and measures to reduce GHG emissions.”

The commenter also believes that the mitigation measures identified are not required but discretionary measures. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 14

The commenter stated that Section 3.11, Human Made Hazards, should have included high-pressure gas line that cross the project area. Gas lines are discussed in Draft EIR Section 3.17, Utilities and Infrastructure.

Response 15

With regard to Section 3.12, the commenter states that the Vista Canyon project is proposing streambank stabilization and that there should be a definition of what is considered channelization versus streambank stabilization. The discussion of exposed gunite riprap and buried bank stabilization is provided in Section 3.12-4. The definitions provided describe the circumstances exposed channelization techniques are required versus streambank stabilization.

Response 16

The commenter states that Policy 3.13-8 requires the use of low-flow fixtures and Policy 3.13-14 only promotes the use of low flow fixtures and requests clarification. The OVOV Plan does not contain Policies

3.18-8 and 3.13-14 which address low-flow fixtures. However, Policy LU 7.4.2 requires the use low-flow fixtures for residential structures. Policy CO 4.1.5 promotes the use of low-flow fixtures in in all non-residential development and residential development with five or more dwelling units.

Response 17

The commenter states that the State has not lived up to their funding obligations for local schools and that without passage of additional bond measures there could be significant additional impacts on schools under OVOV. SB 50 obligations state that with the payment of fees, impacts on schools would be less than significant. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 18

The commenter states that if there are 171 officers then there would be one officer per 1,035 residents which is worse than the standard of 1 per 1,000 residents. We direct the commenter to Section 3.15, Public services, page 3.15-3 which states: "The current number of sworn officers, within the City's Planning Area, is 171, which provides one officer per 1,036 residents. With the projected buildout of the Planning Area, the number of officers required to maintain a standard of one officer per 1,000 residents would need to be 275. In order to maintain adequate service the Planning Area would need an additional 104 sworn officers. With the implementation of the proposed General Plan goals, objectives, policies, and mitigation measure MM 3.15-4 potential impacts on law enforcement would be less than significant." Please also see pages 3.15-53 through 64 for a complete discussion on Police Service impacts.

Response 19

The commenter states that the 1,129 acres of parkland would be needed as opposed to the 916 referenced in the Draft EIR. The commenter is directed to Table 3.16-5 which clearly outlines how the parkland figures were calculated. The 916 acres needed for parkland is correct. The commenter also states that there are no parklands in the Land Use Element or the Land Use Map. Figure 3.1-2, Proposed Land Use Policy Map shows Open Space Land Uses which include parklands.

Response 20

The commenter states that there appears to be a significant disconnect between job growth and what OVOV assumes and promises to deliver. The commenter states that there is no analysis that discusses what happens if the job growth does not occur, the impact on traffic and greenhouse gases or allowance of residential overlays. The OVOV Draft EIR should only address the impacts of the proposed project. It should not speculate. Furthermore, environmental analyses will be conducted for all future projects, and

at that time should job growth not occur and subsequent impacts arise, those impacts would be addressed in the appropriate environmental documentation. No further response is required.

Response 21

The comment states that traffic levels should be required to be at the level of Service "C" as in the existing General Plan. Level of Service "E" conditions are acceptable for brief periods of the day, particularly morning and evening peak hours, in order to allow for the most efficient use of the City's transportation network. Providing for LOS "C" during all hours of the day would require much larger intersections with additional travel lanes, which would be an inefficient use of resources. In addition, such large intersections would be more difficult for pedestrians to cross.

Response 22

The comment states that if density increases are granted on particular projects, they must be reduced on other projects or parcels so that there is no density gain and that General Plan densities need to be maintained. Please see Response to Letter 29, SCOPE, Comment 5. Since a general plan is a long-range document, it will need to be updated over time. This is required for a number of reasons including community need, project benefits and requirements from other government entities such as the State. The portion of the comment suggesting that if one jurisdiction increases density, the other should reduce density are the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 23

The comment states that residential growth should be approved based upon job growth in the Santa Clarita Valley. The comment also states that there are several approaches that are being used to minimize impacts from growth, including 2/1 jobs/housing ration, Vehicle Miles Traveled. The comment states that in order to adhere to plan assumptions and not impact pollution, job growth must take place before or as new units are built. The goal of the OVOV General Plan to work towards a 2:1 Jobs Housing ratio with all new projects. With the exception of mixed use projects, residential and job creation are located in different areas, thereby impossible to implement.

Response 24

The comment states that funding plans and feasibility analysis should be required including roads, schools, water, power, fire library and law enforcement services. There are currently a number of funding mechanisms in place to provide for infrastructure improvements. For example, the City and County B&T Districts provide for full funding of the entire arterial network as described in the OVOV Circulation Element. All new development is assessed a B&T fee based on size and use. The B&T fees were

determined based on the actual costs to construct the Circulation Element network. The B&T fees are collected by the City and County and then used to construct the Circulation Element network. There are similar programs in place for Libraries, law enforcement, transit and fire. The school district funding is regulated by SB 50 and Proposition 1A.

Response 25

The comment requires that tract map extensions not be approved. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. Nonetheless, the following information is provided. Under the existing state and local laws, the initial approval of a tentative map is 24 months to record their final map. They are allowed to request up to a one-year extension. Therefore, the total amount of time a developer has to record their subdivision is three years. Once the tract map is recorded they are legal. It should be noted there are a number of exceptions that would allow additional time to record the map including development agreements and moratoriums. Lastly, in 2008 and 2009, the State of California gave automatic time extensions to all valid subdivisions for three additional years.

Response 26

The comment requests that maps be changed in order to preserve groundwater recharge areas. The comment states that while policies protect open space areas and wildlife corridors, the land uses under the plan give no import to those policies. The OVOV general plan includes a number of policies that address these issues. In addition, the land use map was designed in a way to address the mitigation measures identified. For example, the land uses around the rail stations were increased and densities on the periphery were reduced substantially to reduce the levels of impact consistent with state law.

Response 27

The comment states that the OVOV Plan should require inclusionary housing. The Housing Element contained in OVOV does include the following program that would evaluate the feasibility of inclusionary housing:

Program H 1.10: Inclusionary Housing Program (Mixed Income Housing)

Adopt an inclusionary housing program.

Also known as inclusionary zoning, inclusionary housing is a local policy or ordinance that requires a developer to include a certain percentage of units in a housing project that are affordable to low- and

moderate-income households. Many communities in California rely on inclusionary housing policies to achieve their affordable housing goals. Currently, 12 counties and 95 cities in California have inclusionary housing policies. For a study of California's programs see http://www.nhc.org/pdf/pub_ahp_02_04.pdf.

The advantage of this program for Santa Clarita is that it will ensure that affordable units are produced along with market-rate units to meet the needs of the City's lower income working families and seniors. Santa Clarita's share of the Regional Housing Needs Allocation (RHNA) requires the City create to identify 4,052 sites for very low and low-income households zoned to allow density of at least 30 units per acre. Zoning land with higher densities will increase the value of the land for both owners and developers. An inclusionary ordinance will ensure that the community as a whole benefits when land is developed with higher density, by ensuring that affordable housing is provided whenever new market rate units are developed on these sites.

Inclusionary housing policies vary widely based on local market conditions. Some criteria for the City to consider are:

- **Inclusionary Housing Percentage:** Most communities in California with inclusionary housing policies require at least 10 percent of the units to be inclusionary, with some communities requiring more than 20 percent.

Income Levels Targeted: Most inclusionary housing policies are targeted toward low-income households. However, in recent years, the housing costs in California have escalated to a point where even moderate-income households have problems obtaining affordable housing. Increasingly, communities are including moderate-income households in their inclusionary policies. Nevertheless, jurisdictions should take into account the proportion of need in each income category, including the needs of the extremely low-income population, when designing Inclusionary Housing Programs, and prioritized funding for extremely low income housing if possible.

- **Applicable Housing Types:** In the past, inclusionary housing policies were applied only to rental housing. However, with increasing home ownership costs and income gaps in California, many communities are now applying inclusionary policies to ownership housing developments.
- **Exemptions:** Small-scale developments are likely to have financial and physical difficulties in meeting inclusionary housing requirements. Most policies have a minimum project size of around 10 units that will trigger the inclusionary policy. Developments that do not meet the minimum project size are often required to pay an in-lieu fee (see in-lieu options below). Although the revenue generated by these fees is not typically sufficient to purchase land and build comparable units elsewhere, it can be combined with other funding sources such as redevelopment set-aside funds in order to purchase and land-bank housing sites as described in Program H 1.6.

- In-Lieu Options to Constructing Affordable Units On-Site: Most California communities offer one or more of the following in-lieu options:
 - Pay an in-lieu fee;
 - Construct the affordable units off-site;
 - Donate land so the affordable units can be constructed by another developer;
 - Purchase affordability covenants on existing market-rate units; or
 - Extend affordability covenants on affordable housing that are at risk of converting to market-rate housing.
- Geographic Coverage: Some communities apply the inclusionary policy throughout their political boundaries, while others have inclusionary policies that are applicable only to targeted areas, such as redevelopment project areas.
- Duration of Affordability and Resale Provisions: Inclusionary housing policies are intended to create a permanent supply of affordable housing. Rental housing units usually have affordability covenants to guarantee long-term affordability of these units. Ownership units generally have a mechanism in place to recapture part of the financial resources in order to replenish the affordable housing stock and prevent assisted households from receiving a windfall from the transaction. Recently, affordability controls in inclusionary policies have come to mirror redevelopment affordable terms— 55 years for rental housing and 45 years for ownership housing with resale provisions.
- Incentives for Developers to Offset Costs: Because inclusionary housing shifts some of the costs of producing affordable housing to developers, local jurisdictions typically offer development incentives or regulatory concessions. Incentive options include a density bonus, height increase, shared parking or reduced parking requirements, reduced setbacks or landscaping requirements, fee waivers or reductions, or other flexibility in development standards.
- Feasibility Study: Many local jurisdictions conduct a technical feasibility study to ensure that the minimum housing set-aside requirements, in conjunction with the incentives provided to offset costs, do not contribute overall to making the development of housing financially infeasible.

Objectives/Timeframe: Evaluate the feasibility of establishing an inclusionary housing policy which reflects the housing needs of the various income categories and housing sizes, including the needs of the extremely low-income population, by January 2011. If approved in concept, the City will draft and approve an ordinance and modify the existing Housing Element by December 2011 and begin program by March 2012.

Responsible Department: Community Development Department

Response 28

The comment suggests that land widening should occur on SR 14 past Placerita canyon to Soledad Canyon Road. The improvements to SR-14 stated in the OVOV Circulation Element are consistent with the North County Combined Highway Corridors Study. This study was a joint effort sponsored by Metro, Caltrans, the County of Los Angeles, and the Cities of Santa Clarita, Palmdale, and Lancaster.

Response 29

The comment suggests that unprotected left turns should be allowed. The City allows unprotected (permissive) left turns at signalized intersections when conditions warrant. Typically, if there is a past history of vehicle collisions involving a significant number of left-turning vehicles, the City will convert an intersection from permissive to protected operation

Response 30

The comment suggests that new development should pay for their proportionate share of extensions for recycled water if the use of recycled water is a permit condition. This is already a mitigation measure and policy in OVOV. On Page 313-148 of the Draft Program EIR lists the following:

Policy CO 4.2.2: Require new development to provide the infrastructure needed for delivery of recycled water to the property for use in irrigation, even if the recycled water main delivery lines have not yet reached the site, where deemed appropriate by the reviewing authority.

Response 31

The commenter stated that the EIR conclusion appears to be based on a comparison to the current plan rather than the existing plan, please see **Response 2**, above.

Response 32

The commenter stated that the EIR did not capture most of the comments that arose from the EIR scoping meeting and subsequent correspondence to the City during the preparation of the Draft EIR. This statement is not correct. We direct the commenter to Section 1.0, Introduction, Table 1.0-2, Summary of NOP Comments and Location of Where the Comments is Addressed in the Draft EIR which lists every letter received and how each comment was addressed, including the referenced September 15, 2008 Caltrans letter referenced by the commenter. The commenter specifically referenced a Caltrans comment regarding funding programs and page 1.0-18 specifically stated that this comment is addressed in the Circulation Element of the General Plan. The commenter did not believe that the policies of the Circulation Element will assure roadway widening. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision

makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 33

The commenter states that the City Draft EIR Section 3.2, Transportation and Circulation, does not state what it would consider significant nor list significance thresholds as the County's EIR states. The commenter is incorrect. Please see Section 3.2, Transportation and Circulation, pages 3.2-31 and 32.

Response 34

The commenter is referencing the County of Los Angeles Draft EIR and thresholds under County of Los Angeles significance –which is not applicable to the City of Santa Clarita. The commenter also discusses the findings of Table 3.2-13 providing freeway segment level of service. The commenter also notes a 121 percent increase in trip ends attributed to OVOV as is stated on page 3.2-32 of the Draft EIR. The 1.9 miles reduction traveled is a result of the location of land uses and access to alternative modes of transportation. Furthermore, by locating higher density in transit hub areas and along transit corridors, fewer vehicle trips are made. The Mixed Use concept encourages more walkability to services and commercial opportunities. The Mixed Use placement along transit corridors also encourages the use of both Metrolink and bus service. The OVOV General Plan proposes a dispersion of employment opportunities and hubs throughout the community, resulting in less Vehicle Miles Traveled (VMT) and shorter trips to and from employment centers and a corresponding reduction in Greenhouse Gas (GHG) emissions.

Without the designation of the suitable sites and the provision of the Mixed Use designation in core commercial areas, transit corridors and hubs resulting in dispersed employment centers in the Valley, the following is likely to occur:

- The length of vehicle trips would be longer;
- The number of vehicle trips would increase
- Air quality would worsen;
- Impacts to sensitive habitats would be greater;
- GHG emissions would increase; and
- The City would not meet its RHNA goals nor the objectives of SB 375.

Response 35

The commenter stated that the Draft EIR does not analyze the impacts of all roadways are not built. The commenter further states that there is no analysis to the Newhall Pass between I-5 and SR-14 interchange and the I-405 interchange. The commenter stated that these questions were asked by were ignored in the Draft EIR.

The OVOV Draft EIR should only address the impacts of the proposed project. It should not speculate. Furthermore, environmental analyses will be conducted for all future projects, and at that time should job growth not occur and subsequent impacts arise, those impacts would be addressed in the appropriate environmental documentation. No further response is required.

We direct the commenter to Section 1.0, Introduction, Table 1.0-2, Summary of NOP Comments and Location of Where the Comments is Addressed in the Draft EIR, which lists every letter received and how each comment was addressed, including those submitted by the commenter.

Response 36

The comment questioned why the Level of Service has changed to LOS E from LOS C in the 1997 General Plan. The Level of Service standards did not change with the OVOV Plan. As is stated in Section 3.2, Transportation and Circulation, page 3.2-31 the City adopted thresholds of significance discuss the applicable Level of Service thresholds: "The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds.

Response 37

The commenter states that the Plan would result in inadequate emergency access to Holy Cross Hospital in Mission Hills given the level of service on the I-5 and SR-14. The commenter concludes that emergency access would be considered a significant impact. The City does not agree with this conclusion. Section 3.2, Transportation and Circulation, outline goals, policies, and objectives which would minimize and reduce an emergency access impacts to less than significant as follows:

Emergency access would be evaluated on a project-by-project basis as buildout of the proposed General Plan occurs. However, the proposed General Plan contains several goals, objectives, and policies intended to ensure that adequate emergency access is maintained throughout the Santa Clarita Valley. In order to promote mobility within the roadway network (Goal C 2 and Objective C 2.1), the proposed General Plan seeks to limit excessive cross traffic, access points, and turning

movements on arterial highways; and enforce the appropriate spacing of traffic signals at least 0.5 mile apart, and the minimum allowable separation should be at least 0.25 mile apart (Policy C 2.1.1), provide access to individual properties (Policy C 2.1.2), enhance connectivity of the roadway network through such methods as grade separations and bridges (Policy C 2.1.2), protect and enhance the capacity of the roadway system by upgrading intersections when necessary (Policy C 2.1.3), ensure that the future dedication and acquisitions of roadways are based on projected demand (Policy C 2.1.4), and implement the construction of paved crossover points through medians for emergency vehicles (Objective C 2.2 and Policy C 2.2.9).

Additionally, the proposed General Plan would facilitate consideration of the needs for emergency access in transportation planning (Objective C 2.5). The City would maintain a current evacuation plan (Policy C 2.5.1), ensure that new development is provided with adequate emergency and/or secondary access, including two points of ingress and egress for most subdivisions (Policy C 2.5.2), require visible street name signage (Policy C 2.5.3), and provide directional signage to the I-5 and SR-14 freeways at key intersections to assist in emergency evacuation operations (Policy C 2.5.4).

Response 38

The commenter listed some of the roadways and corresponding Level of Service needed to access Henry Mayo Hospital. Please also see **Response 37**, above. No further response is required.

Response 39

The commenter stated that prompt medical care would not be available for extended periods of time. The commenter stated that the only policies that appeared to address this issue are C 2.5.1-4 and these policies do not address the poor Levels of Service. Please see **Response 37**, above. The comment only expresses the opinions of the commenter with regard to prompt medical care not being available for extended periods of time. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 40

The commenter states that the Plan will create hazards and barriers for bicyclists and pedestrians which are outlined as a Threshold of Significance. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 41

The commenter stated that the Highway Plan eliminated five segments of bike lanes with no replacements shown, thereby limiting the bikeway system. The commenter further states that there are significant gaps in the trail system. The comment raises issues to the Circulation Element that do not

appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 42

The commenter was concerned that the width of the streets under the Circulation Plan create hazards and barriers for pedestrians and bicyclists. The comment raises issues to the Circulation Element that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 43

The commenter was concerned that Class III bikeways are proposed on a numbers of roads that have vehicle counts exceeding 10,000 vehicles per day. The commenter believes this to be hazardous to bicyclists. The comment raises issues to the Circulation Element that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 44

The commenter states that the mitigation measures proposed do not provide context regarding their effectiveness and that there can be a geographic distance between housing, upper level schools, shopping, entertainment and job centers. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 45

The commenter stated concern that there will be environmental obstacles to implementing the OVOV Highway Plan and that it is critical that an economic plan be prepared otherwise it can then be determined if mitigation measures are practical and feasible. All roadways constructed as a part of the OVOV Plan will be required to have CEQA review. The comment regarding the need for an economic plan raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 46

The commenter stated that there is no mention the number of people who currently utilize public transit. The commenter further states even if present day usage of alternative modes of transportation are tripled it would not make an appreciable reduction in Level of Service. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 47

The commenter stated that he believes that it will be difficult to achieve a 2:1 jobs/housing ratio, which must be discussed. The OVOV Program EIR discusses the goals, objectives, and policies of the plan. The OVOV Plan is a guideline for the future. Please see Sections 2.0, Project Description, and 3.1, Land Use, for a description and discussion of the OVOV proposed land uses that will serve to support a goal of 2:1 jobs housing.

Response 48

The comment raises issues pertaining to the General Plan that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 49

The commenter stated that a number of policies are proposed for circulation impacts that neither the City nor the County have any control over. Several policies have been proposed by which the City or County have no direct control. However, much of the traffic on the I-5 and SR-14 are from vehicles that do not originate in the Santa Clarita Valley. Therefore, it is imperative that the City participate in how surrounding regions policies and programs affect that the Santa Clarita Valley and provide representation to avoid future impacts.

The commenter also stated that when SR-14 is heavily trafficked, roads that parallel the SR-14 become impacted. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 50

The commenter stated that he believes the OVOV Plan to be deficient because of its inability to overcome terrible traffic conditions. Further, the commenter does not see any existing condition that is improved over existing conditions. While acknowledging that the proposed Plan is marginally improved over the current Plan, the current Plan in his opinion is deficient and any comparison is still a failure. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 51

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: Diane Trautman [dtrautman@ca.rr.com]
Sent: Monday, February 21, 2011 11:35 AM
To: Jason Smisko
Subject: OVOV Comments

Hello Jason,

I was looking through the OVOV Appendices and I don't see any of the questions I submitted when the Planning Commission conducted study sessions on each of the elements. If I'm mistaken, please let me know where I can find them. If they're not included, I ask that they be added to the document now, along with any additional comments and questions I've submitted since that time.

Thank you,

**Diane Trautman
(661) 263-2917**

Planning Commission Study Session
June 17, 2008
Conservation and Open Space Element
Submitted by Commissioner Diane Trautman

- 1) p. 6 - (Q) What other ridgelines has the County designated as significant other than in the Castaic area?
- 2) p. 6 - (Q) When will the City and County develop a set of hillside guidelines?
- 3) On page 11 we read that there is no pumping for urban water from the Acton Valley Groundwater Basin and that some individual users "may have private wells". I understand that some residents in that area pay to have water trucked in. (Q) Does the County have a solution for the lack of water supply delivered to that area?
- 4) p. 13 - The first paragraph under Water Supply contains the following statement: "At full capacity the SWP system can convey 4 million acre feet per year." (C) The paragraph should also include the statement that the SWP system has not yet been built for full capacity.
- 5) p. 13 - The second paragraph contains the statement that CLWA serves the area "with an annual contract for 95,200 acre feet of SWP water." (C) This implies that the agency can always count on that amount, but the amount varies according to conditions. So the statement should be amended to reflect that (perhaps "with an annual contract for 95,200 acre feet of SWP water under ideal circumstances.")
- 6) p. 14 - (Q) How long have water retailers been pumping over 50 percent of domestic water supply from groundwater aquifers?
- 7) p. 14 - (Q) Are all supplemental sources (from transfers, exchanges, and groundwater banking) independent from SWP water?
- 8) p. 14 - The City has a water conservation ordinance that speaks to restrictions in the face of shortages. (Q) What kind of provisions would CLWA want the City to enact to protect our water supply before we are in crisis?
- 9) p. 16 - (Q) What steps will CLWA, the City, and the County take if SWP water is permanently reduced?
- 10) p. 17 - (C) I would like to get a copy of the Draft State Water Project Delivery Reliability Report 2007
- 11) p. 8 - "CLWA has determined that there are sufficient water supplies available for pending and future development...through 2030..." (Q) Again, are conjunctive water sources completely separate from SWP supplies?
- 12) p. 19 - "Both the City and the County will show their commitment to wise water use through converting turf to xeriscape on new capital projects." (Q) Will the City and the County incorporate water conservation measures into codes and ordinances to pro-actively conserve water for existing residential and private re-landscaping projects?
- 13) p. 19 - (Q) Is every retailer with CLWA using conservation pricing? Or is it only NCWD?
- 14) p. 20 - (Q) If CLWA can't use more than 1700 af for recycled water in part because of downstream users, how can the Newhall Ranch Specific Plan construct a water recycling plant? Wouldn't that be taking water from downstream users?
- 15) p. 21 - (Q) Can private residential and business discharges of chloride be identified at the source? And if so, could prices be raised for those who refuse to remove their water conditioners?

Planning Commission Study Session
June 17, 2008
Conservation and Open Space Element
Submitted by Commissioner Diane Trautman

- 16) p. 22 – The first paragraph mentions “the current plan for integrated control of contamination migration and restoration of impacted pumping (well) capacity.”
(Q) What is the current plan? Is it anticipated that the loss of production from 4 closed wells will create a long-term water delivery problem is contamination migration isn’t correcting within a certain period of time.?
- 17) p. 24 – “River channels and open upland areas of the planning area provide habitat for movement and foraging, as does the adjacent National Forest land.” The River Village project as approved by the Planning Commission included water guzzlers for wildlife traversing the area and upland passage under a bridge, but any northerly wildlife corridor to connect the Santa Clara River to the Forest has been blocked by home development in the County areas. (Q) Will both the City and the County identify and protect wildlife corridors that connect to the River and the Forest?
- 18) p. 28 – (Q) Who are the members of the SEA Technical Advisory Committee and how are they appointed?
- 19) p. 28 – “the City’s Development Code requires that any such project be designed to be compatible with biological resources, maintain watercourses and water bodies in a natural state, maintain wildlife corridors, preserve adequate buffer areas of barriers between development and natural resources...” (Q) How is the adequacy of a buffer area determined? By minimums set by regulating agencies or by qualified biologists?
- 20) p. 30 – The section also speaks to the importance of wildlife corridors and their protection. (Q) Will the County work with the City to include a map of wildlife corridors in the new General Plans?
- 21) p. 33 – “Even small open spaces in urban areas can provide refuges for wildlife populations.” (C) An unintended consequence of the Bridgeport Marketplace water feature is that ducks are now trying to waddle across the 8-lane Newhall Ranch Road to get there from the Bridgeport housing water feature. As is mentioned so often throughout this element, we need to consider wildlife behavior and patterns when we review projects.
- 22) p. 33 – “Prohibit new development within 100 feet of any wetlands as defined by federal, state, or local regulations, or within 50 feet of a water body...” (Q) Is the planning commission able to require a greater buffer if recommended to provide sufficient upland habitat based on the recommendations of a qualified biologist?
- 23) p. 34 – “Local landscape ordinances should be revised...” (C) A new ordinance should include guidelines/restrictions for re-landscaping on existing commercial and residential to encourage more xeriscaping.
- 24) p. 50 – “Over 4,000 acres of high quality riparian habitat have been preserved in a natural state along the length of the River.” (Q) Where is this habitat? (C) This should also be included on the wildlife corridors map.
- 25) pp. 54,55 – I would like to see a comparison between the OVOV recommended actions and those recommended by the International Panel on Climate Change. I would also request a discussion of the US Mayor’s Climate Protection Agreement. (See p. 97, 3.6).

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Planning Commission Study Session
June 17, 2008
Conservation and Open Space Element
Submitted by Commissioner Diane Trautman

- 26) p. 55 – Item 4 would allow creation of “activity areas” with commercial in residential areas without a General Plan Amendment. (Q) If we are amending the General Plan anyway, why can’t we look at current and pending plans from the perspective of addressing the needs of “local clientele” and designated those areas accordingly.
- 27) p. 55 – (Q) What is a low-intensity use within the 100-year flood plain?
- 28) p. 56 – Item 11 states that Los Angeles County will adopt an ordinance to promote green building (Q) Is the City prepared to create an adopted the same or similar ordinance?
- 29) p. 68 – In the fourth paragraph, there is a typo: “In addition, the City plans to acquire approximately land to complete...”
- 30) p. 76 – (Q) Do we have a system in place to monitor conditions of approval (Objective CO 1.5.3b.) and is a system proposed for Objective CO 1.6?
- 31) p. 78 - Biological Resources – (C) I think we need a stronger policy to encourage creative development around trees and particularly stress preservation of native oaks.
- 32) p. 81 - Policy CO 3.6.2.a. – (C)I think we need to be cautious about reducing parking requirements and shared-use agreements until we have a sufficient public transportation system to support reduced parking needs.
- 33) p. 82 – (C) We should add a policy about educating and encouraging (or requiring) xeriscaping on re-landscaping projects on private property.
- 34) p. 83 – (C) Consider adding a policy to further discourage those who continue to operate water softeners.
- 35) p. 88 - (Q) What can and should be done to encourage on-site wind-generated energy?
- 36) p. 94 – (C)We need to get off-road vehicles out of the river bed.
- 37) p. 94 – CO.1.17 – (Q) What alternative energy projects should be permitted in open space areas? Please give an example.
- 38) p. 97 – 3.6 – (C) I believe we should consider joining the US Mayor’s Climate Protection Agreement.
- 39) p. 98 – (C) Consider adding a 5.10 regarding xeriscaping for existing property owners when they re-landscape.
- 40) P. 99 – Waste Reduction – (C) We need to develop a recycling program at all public and private facilities.

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Planning Commission Study Session
July 15, 2008
Land Use Element

- 1) An map or overlay delineating hazardous areas would be very helpful. Would staff please provide this before the first public hearing?
- 2) Page L-5: Wording should be incorporated into the Open Space and Recreation description to include preserved natural lands. That was the stated purpose of the Open Space District.
- 3) Page L-6: What is the projected population growth in proximity to the three Metrolink commuter stations?
- 4) Map L-8: This map counts the Smiser Property, North Newhall, Porta Bella and Northlake as Adopted Specific Plans. As I understand it, Porta Bella is no longer an active project. When were the other properties approved as specific plans? Specific plans must be detailed and consistent with the General Plan, but his general plan doesn't contain any detail about how the areas are to be zoned and developed.
- 5) Page L-9: Where is the North Newhall Specific Plan situated with respect to the floodplain?
- 6) Page L-11: Access to jobs will require more than road completion. Park and ride lots and bus stops along with increased bus service will be necessary.
- 7) Page L-11: I am pleased to see that protection of the rural and equestrian character of Sand Canyon is an issue of concern. Perhaps we should add further clarifications to the Special Standards Districts to ensure that "traditional subdivision"-type developments are not promoted in the Canyon.
- 8) Page L-13: Is the County working to preserve and expand the trail system for residents of Agua Dulce? At the meeting I attended last year in Agua Dulce, County representatives spoke with the community regarding the County's General Plan and the trails system appears to be a big concern to those residents.
- 9) Page L-15: How will the Newhall Ranch project provide a jobs-housing balance that reduces traffic congestion?
- 10) Page L-17: Is detailed analysis using "traffic analysis zones" the traditional method for calculating population and household counts? What other methods are used? Why is the selected method superior?
- 11) Page L-17: What traffic model is used for these calculations? Who designed the model? Has it been updated? By whom? And using data from what source?
- 12) Page L-18: The description of downtown Newhall doesn't include creation of an arts district, which we have been told is part of the plan. The arts should also be included under Entertainment Centers on the next page.

Planning Commission Study Session

July 15, 2008

Land Use Element

- 13) Page L-19: Though approved, the Gate King Industrial Park is not yet built. Perhaps that should be indicated as "pending."
- 14) Page L-21: What were the data sources for employment projections? Based on projected employment centers, what is the estimate for higher income-producing jobs?
- 15) Page L-21: I agree that we need a corresponding increase in the use of mass transit and look forward to seeing how that can be achieved when we review the Circulation Element. In the meantime, this element should include additional provisions for Metrolink parking and park-and-ride parking.
- 16) Page L-21, 22: Under Economic Development Efforts, we should identify a location for a second hospital in order to provide services desperately needed in the valley.
- 17) Page L-22: A convention center sited along with an arts center would provide an economic engine for the entire valley. This should be considered in or adjacent to the Whitacre-Bermit property.
- 18) Page L-23: How was the Tourism Master Plan created? Who originated the plan? When was it discussed? Will it come before the Planning Commission? How was sports tourism identified as "of particular interest?"
- 19) Page L-25: Will policies included in the General Plan regarding "reduced parking requirements" also tie those reductions to increases in bus service both within and to other destinations?
- 20) Page L-26: In the first paragraph it should be stated that "Sprawl is created by both transportation and land use patterns and policies."
- 21) Page L-27: When will the County update its Hillside Design Guidelines to protect ridgelines? And when will those guidelines become regulatory rather than advisory?
- 22) Page L-28: Regarding preservation of the Santa Clara River, again, larger buffers and more wildlife corridors will be needed to "support diverse wildlife."
- 23) Page L-28: Recognizing that "most Americans cannot live in the same community throughout their lives and grow old with friends..." is a good start. Where can we insert policies regarding placement of low-cost senior and veterans' living facilities for those on fixed incomes where housing is in close proximity to commercial and recreational facilities? Will affordable housing of this nature be thoroughly analyzed and addressed in both the Housing Element and the Consolidated Plan? What is the County creating by way of policies for this type and location of housing? What about the creation of a new Senior Center?
- 24) Page L-32: I don't believe any of the school districts are using year-round academic calendars or wish to do so in the future.

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Submitted by Commissioner Diane Trautman

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Planning Commission Study Session
July 15, 2008
Land Use Element

- 25) Page L-32: Funding is not actuallyj “assured”, but rather “collected” through a combination of these revenue sources...”
- 26) Page L-33: Which policies will be included in the General Plan “to address coordination of land use planning with school facilities planning”? Have City and County staff members met with school district officials to identify properties owned by the districts or considered for designation of future schools? These future school sites should be identified along with population projections. (See also L-56, #16.)
- 27) Page L-35: Is there any discussion between the City and County about the creation of an additional medical facility for military veterans since there are only two older facilities for the entire County?
- 28) Page L-35, 36: Again, another hospital for the valley is an identified necessity.
- 29) Page L-36: I believe the Cultural Arts Master Plan called for an Arts Center. The Performing Arts Center is insufficient to meet those needs and there is no permanent gallery space for visual arts. The Arts are typically identified with premiere cities and would be a big boost to our economy, especially given our valley’s rich resources in the arts and an increasingly important source of funds from the arts.
- 30) Page L-36: “Based on the County’s estimates, residents generate about 11 pounds of solid waste per day.” Is that per person? Per residence?
- 31) Page L-38: To what extent can we set higher standards for development in flood-prone areas beyond those set by FEMA?
- 32) Page L-41: When this Element comes before the Planning Commission in public hearings, will it include maps indicating distribution of existing schools, fire stations, parks, libraries, affordable/low-income housing, etc.?
- 33) Page L-44: Will proposed “supportive commercial and institutional uses” come before the Planning Commission for reviews and zone changes?
- 34) Page L-48: If Mixed Use zones will allow density-bonuses, we should consider a policy for workforce and low-income senior/veteran housing.
- 35) Page L-50: Some businesses that manufacture and assemble products and goods (such as welding companies) may need outdoor workspaces. Has staff discussed this issue with the Chamber of Commerce or any individual businesses?
- 36) Page L-56: #10 – Add improved mass transit facilities and incentives for mass transit.
- 37) Page L-59: Objective LU 2.1: Provide adequate, suitable sites... to meet current and the anticipated needs of future growth.

Planning Commission Study Session

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Land Use Element

- 38) Page L-59: Policy LU 2.3.1: Residential densities at the higher end of the allowed range in any mixed use area shall... incorporate a mix of uses and provide workforce/senior low-income housing. (See comment # 34 regarding Page L-48.
- 39) Page L-59: Healthy Neighborhoods: Good policies. We need to seriously consider rent stabilization for workforce, very low, low and moderate income classifications.
- 40) Page L-62: Policy LU 3.4.6: Good policy to protect neighborhoods from overdevelopment of adjacent properties.
- 41) Page L-62: Are there any considerations for promoting creation and expansion of small businesses other than live-work spaces?
- 42) Page L-63: Policy LU 4.2.1: This policy should include promotion of arts beyond the film industry.
- 43) Page L-63: Policy LU 4.3.5: Again, this area would be an ideal location for an arts and a convention center due to proximity to the Cross-Valley Connector.
- 44) Page L-64: Where is Entrada Ranch?
- 45) Page L-64: Will zoning permit the inclusion of dining in business park areas or will there be sufficient room for these amenities nearby to encourage walking and discourage driving? (See also Policy LU 5.2.4.)
- 46) Page L-64, 65: Enhanced bus service for students at C.O.C. campuses would further reduce vehicle use and solve parking problems for students, especially during days when filming occurs on campus.
- 47) Page L-65: Policy LU 6.1.2: I believe habitat and species protection requires more than a 50' development setback. What is typically requested by CDFG or USFW?
- 48) Page L-66: Policy LU 6.2.1: Water features will use recycled water only? What does CLWA have to say about adding water features?
- 49) Page L-66: Objective LU 6.4: Is there any consideration of creating a museum for cultural resources? Or creating a wildlife/botanical center near the Santa Clara River to educate the public about river/habitat conservation?
- 50) Page L-68: Policy LU 7.2.3: Again, we need to ensure that we have adequate public transit infrastructure and services before reducing parking.
- 51) Page L-68: We can also encourage redevelopment/re-landscaping of existing residential and commercial structures to encourage water conservation and improve water quality.
- 52) Page L-68, 69: I would add another policy: Encourage innovative site design to protect oaks and other trees, and to preserve hillsides and habitats.

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Submitted by Commissioner Diane Trautman

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Planning Commission Study Session

July 15, 2008

Land Use Element

- 53) Page L-69: LU 8.1.1: "Coordinate plans for new residential development with affected school districts to ensure adequate mitigation of impacts on school facilities;... ADD: safe and effective traffic circulation around schools to reduce safety hazards ...
- 54) Page L-69: Objective LU 8.1: Add a policy to bring in a new Senior Center that is accessible to all senior citizens in the valley.
- 55) Page L-69, 70: Again, we should encourage development of a second hospital by identifying a suitable location and using economic development efforts to entice a new provider to the valley.
- 56) Page L-72: #4: Will the Planning Commission have an opportunity to review the revised CIP based on the new General Plan? (Thank you for #5.)
- 57) Page L-73: #3: Add "of" between the words "conformance" and "new."

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Submitted by Commissioner Diane Trautman

5

1. On page N-3, there is a brief discussion of the effects on sound attenuation caused by high temperatures, humidity and wind. Have the noise studies used in this element been conducted on any of our Santa Ana wind days? If so, to what degree have the winds carried sounds into sensitive areas?
2. Exhibits N-6 and N-7 and Table N-2: The maps show an increase from 65 CNEL to 70 CNEL on Railroad Avenue and Soledad Canyon Road all the way east beyond the OVOV Planning Area. Text on page N-21 and elsewhere indicates that that there will be substantial increases in both vehicle traffic, freight trains, and Metrolink services. Please explain how changes due to OVOV will result in negligible noise increases along many roadway links and even reduce noise rates along others, such as Dockweiler west of Sierra Highway? How does the 2008 General Plan and Area Plan differ from OVOV?
3. Page N-20: Please describe how “topography and intervening buildings or barriers” affect the propagation of noise? What methods other than sound walls can be used to stop sound from traveling to sensitive receptors?
4. Page N-21: This page contains the statement that “only seven roadway links of the 318 links that make up the entire roadway network” where noise levels will increase by 1 dB or more. How many of those 318 roadway links are secondary highways or greater?
5. Page N-21: How did you arrive at the projected 2.4 dB noise level increase resulting from expanded rail service? What data are used and how is it calculated?
6. Pages N-23, N-24: Will residents of the Penlon project be given information about noise affects and projected noise increases along the Southern Pacific Railroad? How will the increases affect their second story interior noise levels and how will that be conveyed to prospective buyers? (See page N-23, last paragraph).
7. Page N-24, page N-32: Might we consider restricting the location of nighttime commercial uses to areas within a mixed use projects that are not location directly beneath residential units? (Design that portion for service areas for the residential units?)
8. Page N-26: If noise generated by emergency flights of helicopters cannot be controlled the City or County, why was the Planning Commission asked to review the location of the hospital helicopter pads in relation to nearby residences?
9. Page N-26: The last paragraph contains a statement that CARB has recommended residences be located 500 feet from the edge of the freeway due to potential air impacts from diesel exhaust and cites the CARB recommendation as the basis for a policy to locate residential buildings 150 feet from the Interstate 5 centerline. Wouldn't the policy (page N-32) be 1500 feet from the centerline?
10. Page N-31: Aside from using electricity to run air conditioning units 24/7, how can builders reduce indoor noise levels to 45 CNEL in areas where ambient noise levels will exceed 60 CNEL?

1. Beginning on page C-2, the word “facilities” is used frequently throughout the document where the word “systems” would be more appropriate and less confusing.
2. What are the traffic projections for the Santa Clarita Parkway from Bouquet Canyon Road through Central Park, down through River Village and over the Santa Clara River to Magic-Princessa?
3. On page C-4, the third paragraph speaks to the need for mixed-use development to solve many of the roadway challenges. What other solutions are being considered?
4. Page C-7: Is the City adopting and implementing a trip reduction and travel demand ordinance? What would that look like?
5. Page C-8: The first paragraph concludes with a statement that traffic conditions on I-5 and SR-14 have improved since the first Congestion Management Program was completed in 1991. How was that measured?
6. Page C-9: The final bullet on this page states: “For the purposes of circulation planning at the General Plan level, local streets are not included on the adopted Highway Plan. Isn’t that lack of detail a contributing factor to cut-through traffic in neighborhoods?”
7. Page C-13: Neighborhood Traffic Management – What is the County program to make neighborhoods safer? How does it work? (Also see #6 above.)
8. Page C-14: What traffic issues were identified through the public input process? How were they considered and incorporated into the Circulation Element?
9. Exhibit C-2: This map seems to lack identification of more than two 2-lane roads in the City or unincorporated areas. For example, the Ermine connection to Golden Valley Road is not included. Roadways connecting to residential areas, especially those with potential negative impacts should be included.
10. Page C-17: #2 With the Skyline Ranch project pending, why should Vasquez Road be downgraded from a secondary to a limited secondary highway?
11. Page C-17: #6 Also in relation to the Skyline Ranch project, why reclassify Skyline Ranch Road from Plum Canyon Road to Sierra Highway from a major highway to a secondary highway?
12. Page C-17: #13 Is Lost Canyon from Jakes Way to Sand Canyon Road a 2-lane or 4-lane highway? Exhibit C-2 is unclear.
13. Page C-17: I would like to see an overlay for Exhibit C that show the roadways removed due to traffic analysis.
14. Page C-20: What is the definition of “Parkway”?
15. Page C-20, Table C-3: “Roadway Improvements Needed for Build-Out of Highway Plan”
 - a. Regarding proposals to widen roadways, how many of these require either eminent domain or future redevelopment of properties along these arteries?
 - b. In 5 of these proposals, Class II bike lanes will be removed. Considering the emphasis on multimodal transportation, what alternatives are proposed for bicyclists in the Bouquet Canyon and Sierra Highway corridors?
 - c. Six new bridges are proposed to cross the Santa Clara River. In total, there are 97 projects ranging from restriping to new construction.
 - i. What is the total projected cost of all projects?

Submitted by Commissioner Diane Trautman

- ii. What portions of those costs are paid by developers and by taxpayers through use of city general funds and other governmental sources?
16. Page C-31: The final paragraph concludes with a statement that no new roads have been added to this new Circulation Element as a result of funding constraints. Have roadways been removed for that reason? If so, which roads were removed?
17. Page C-32: With regards to parking management:
 - a. What strategies are in place to ensure that a reduction in parking requirements will be countered by an increase in public transit?
 - b. What strategies will be pursued to ensure that pricing and other regulation of parking will not result in spillover parking in surrounding neighborhoods?
18. Page C-35: Paragraph three concludes with this statement: "A need has been identified for a future fourth (Metrolink) station on the east side of the Valley." How was that need identified?
19. Page C-35: Passengers are also complaining about the lack of parking at both the Santa Clarita and the Newhall Metrolink stations. What plans are proposed to alleviate the parking deficit at both stations?
20. Page C-36: Where would the City Council choose to locate the proposed terminus for the Santa Paula line in Santa Clarita?
21. Page C-40: Has a study been conducted to link bikeways to transit stops and Metrolink stations?
22. Page C-41: College of the Canyons hosts many community events on its Valencia campus and also serves fairly regularly as a filming location. Both result in a reduction of student parking spaces. Perhaps the Hometown Trolley should run by the college campus on a regular basis and take students to the transfer station.
23. Page C-42: What is the preferred bike lane configuration for the safety of both experienced and recreational cyclists? What about the feasibility of a raised design for bike lanes?
24. Exhibit C-5: Please provide an overlay that shows what is being removed from the Bikeway Master Plan.
25. Page C-47: "pedestrian islands" are mentioned in the final paragraph under the Pedestrian Circulation System heading, but I don't see them in reference to the Non-Motorized Transportation Plan. Is there no discussion of installing pedestrian islands to both provide safe passage for pedestrians while keeping an even flow of traffic?
26. Page C-50: Back in Table C-3 (beginning on p. C-20), we see that three streets will lose on-street parking with roadway improvements, yet on this page, we read that on-street parking is a part of the design for healthy streets. Are we trying to develop walkable communities just with the "villages" or are we connecting those villages to one another and the larger city in the overall design?
27. Page C-53: The final paragraph lists transportation demand measures among strategies for complying with AB32 to reduce greenhouse gas emissions. Perhaps

Planning Commission Study Session: Draft Circulation Element, OVOV
October 21, 2008

Submitted by Commissioner Diane Trautman

this paragraph should conclude with a few examples of those measures for better clarity.

28. Page C-54: Flexibility in transportation planning is good as long as it doesn't alter commitments to funding for transportation with the hope that future technologies will fill the gap.
29. Page C-55: Has an analysis been done to determine the amount of vehicle trips that will/can be eliminated through implementation of mass transit and other modes of transportation?
30. Page C-60: There should be a policy in this section regarding the installation of raised medians in commercial areas. Businesses need to be able to ensure that delivery trucks will have reasonably easy access to their properties.
31. Page C-61, Policy C. 2.4.3: Please give examples of street design and traffic control devices that will be used to avoid cut-through traffic.
32. Page C-61, Policy C. 2.5.2: If public safety is the priority, there should be no exceptions for "small subdivisions where physical constraints preclude a second access point." That clause should be eliminated.
33. Page C-62, Policy C. 2.6.2: What is the justification for allowing a developer to pay an alternative fee if the developer is otherwise unable to mitigate its impacts for the roadway system?
34. Page C-63, Rail Service: Perhaps we should add a policy to coordinate with other cities/agencies to establish transportation services that carry commuters from rail and bus service to their jobs in those cities.
35. Page C-64, Policy C 4.1.6: What kinds of incentives would be used to entice developers to build near rail stations? Why would they be necessary?
36. Page C-71, Policy 1.2: Would this ensure creation of adequate arterial roadways in county-approved projects?

1. Page H-5: Land Use Element: Statement number 2 in the first paragraph doesn't reflect the Land Use Element that we reviewed in a prior study session because the LUE didn't designate densities on sites identified as Specific Plan areas. Is this statement intended to reflect the final draft of the element?
2. Page H-5: Conservation and Open Space Element: I would like to see a map for land use and housing that contains demarcations of waterways, floodways, floodplains, and blue line streams.
3. Page H-15: (1.f) Redesignation of Key Sites to RH: I thought we withdrew consideration for GPA/ Zone changes for these sites, pending further discussion.
4. Page H-16: (1.g) Do future plans include year-round emergency shelter? And how will the city "...provide support and assistance for other shelter proposals as part of the Unified Development Code?" What kinds of proposals are being considered?
5. Page H-16: (2.a) Do we have GIS layers that include rivers and streams?
6. Page H-16: (2.b) Are all City properties zoned OS? Aren't there pieces zoned for commercial uses that could be exchanged for residential-zoned properties?
7. Page H-17: (3.a) Please define "conduit financing".
8. Page H-18: (3.c) Did the City defer or waive fees for the Bouquet and Canyon Country senior apartments? It was my understanding that these were deferrals.
9. Page H-20: (4.f) What is the source of the Workforce Investment Act funding? What department is responsible for administration of the program?
10. Page H-21: (4.i) Could in-lieu fees under an Inclusionary Ordinance be used to refinance units with expiring terms?
11. Page H-21: (5.b) How are Mobile Home Park tenants made aware of the MPROP program? Though no mobile home park closures were proposed, conversions have been approved that displace some residents. It would be more productive to educate tenants about the possibility of cooperative ownership and guide them through the process than to force tenants to leave the parks when they can't afford market rates and can't qualify for low-income assistance.
12. Page H-42: Even though the City has a mobile home space rent control ordinance and a five-member adjustment panel, owners have been able to increase rents recently by over 5%. What other measures could be possible to keep the rents more affordable?
13. Page H-42: Some cities are incorporating building standards that make new units handicap accessible. I'd like to see some examples. Can we incorporate any of these ideas in our standards?
14. Page H-49: I recommend that the City consider the ordinance as recommended to monitor bond pay-off notices to tenants and with City follow-up monitoring on owners actions.
15. Page H-61: I have spoken with residents of an Alternative Living for the Aging project and I think this is a very promising program for Santa Clarita for seniors and others willing to share housing.
16. Page H-70: Table H-5.2 - If the land use map must include 9,379 new dwelling units that might feasibly be developed through year 2014 and 9,229 of those units are needed to meet RHNA requirements for very low, low, moderate, and above moderate income levels, how can the RHNA numbers be met without an inclusionary ordinance, coupled with dedicated housing developments for those income levels? (Note: Page H-70 was duplicated on the back.)
17. Pages H-72-76: I would like a chart that shows current zoning and allowable densities at mid-point range compared to proposed zoning and densities proposed with mid-points and maximums.
18. Page H-72: When was the EIR certified for Via Princessa?
19. Pages H-78,79: What is the rationale for eliminating the requirement that mid-point densities should be the maximum allowed unless substantial community benefits are provided? If having a better balance of housing for all economic levels is needed to meet RHNA requirements, permitting higher densities by right won't help us achieve that goal. (See #23 below)
20. Page H-80: Why would a property with maximum density of 2.2 units/acre be deemed "urban"?
21. Page H-82: What other cities use Specific Plan Zones? What does state law require in order for these to be enacted?

22. Page H-83-85: Are these all existing UDC standards? Or are some proposals? Throughout this document, the text tends to blend existing policies and approvals with those that are pending approval of this and other elements of the new General Plan.)
23. Page H-98: City Incentives to Promote Affordable Housing Production: If we permit developers to build at maximum densities by right, wouldn't density bonuses allow for increased density beyond the maximums by up to 35 percent? Haven't we removed all incentives if we permit maximums as a matter of course?
24. Page H-99: Under the first condition what kinds of "significant community benefits" could qualify for fee waivers or reductions?
25. Page H-99: Again, isn't lifting the density restriction part of the incentive for providing affordable housing?
26. Page H-104: Single-Family Mortgages: I agree that methods must be found to help homeowners keep their homes. That could be one of the benefits of working with Alternative Living for the Aging. Also, are the listed resources provided on the City's website to help guide homeowners?
27. Page H-105: Goals, Objectives, Policies, and Programs: How will the City set criteria and establish the process for measuring success in meeting stated objectives?
28. Page H-107: Policy H1.1.2, Program H1.2: Where are provisions to encourage housing for very-low and low-income residents, other than Program H1.4 in which the City will consider amending the UDC to allow granting of density bonuses in excess of minimum required by State law? Again, how can we grant densities well above the maximums that are to be provided by right?
29. Page H-108: When we review the proposed new General Plan map, we should have an overlay to show the location of the market rate and the RHNA housing as proposed in this element.
30. Page H-109: Program H.1.5: Why are incentives needed for mixed use development? What are the pros and cons of mixed use for developers?
31. Page H-109: Program H.1.7: What other cities are using small lot subdivisions to make homeownership more affordable? What is the typical lot size for these subdivisions?
32. Page H-110: Program H 1.8: With the addition of more complex strategies for acquiring and managing properties, isn't it time to consider establishment of a Housing Authority? At what point do other cities establish Housing Authorities? What are the typical functions of Housing Authorities?
33. Page H-111: Program H 1.10: Inclusionary Housing Program: I support the adoption of an Inclusionary Housing Program.
34. Page H-113: Goal H.2: The creation of housing for very low and low income households doesn't seem to have been included under the density bonus scenario on Page H-107.
35. Page H-115: Program H 2.5: Senior Shared Housing Program: I support the creation of such a program, but I think it should be expedited. December 2009 is too far in the future for seniors and others who are struggling and losing their homes now.
36. Page H-116: Foreclosed Property Maintenance Program: I fully support adoption of a program that requires owners of foreclosed properties to maintain those properties.
37. Page H-119: Program H 5.2: Emergency Shelter Ordinance: Why would it take more than a year to amend the UDC to create this overlay zone for a year-round emergency shelter?
38. I would recommend the City consider working with the local business community to create a Community Land Trust.

Planning Commission
Study Session: Safety Element
April 15, 2008

Comments & Questions on Draft Safety Element

Page S-1 (B. paragraph 1): "The aim of the Safety Element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from these hazards, by providing a framework to guide local land use decisions related to zoning, subdivisions, and entitlement permits." (Q) There are slope instability problems in existence in areas such as Canyon Country. Will the Safety Element offer policies to address existing problems?

Page S-1 (B. pgh 2): Regarding evacuation routes, I have heard that many in Canyon Country neighborhoods above Camp Plenty Road did not have adequate evacuation routes during the most recent fires. (Q) How will the City and County address inadequate access from existing neighborhoods in the new Safety Element?

Page S-11 (Final pgh): Are there design and building requirements in existence, similar to Seismic requirements, for areas prone to landslides or subsidence? If so, have the City and County incorporated those standards to fully mitigate potential hazards from soil instability?

Page S-15 (pgh.3): "The City's 1996 Santa Clara River Enhancement and Management Plan recommended an acquisition program for land adjacent to the river for open space, recreational, and flood protection uses, and the City has since acquired hundreds of acres of land along the river for these purposes." (Q) Please show a map that indicates hundreds of acres preserved.; (Q) Is this revised Safety Element consistent with the Open Space and Conservation Element goals of protecting sensitive habitat areas? And how so?..

Page S-17 (pgh.3): "... local safety plans have considered the possibility of dam failure and have outlined a procedure for response and recovery from this type of hazard, including identification of inundation areas and evacuation routes." (Q) How is the public made aware of these inundation areas and evacuation routes?

Page S-19 (pgh 4): Please discuss fire safety standards for sprinkler systems and other fire fighting mechanisms within parking structures.

Page S-29 (Final pgh): "Two means of ingress and egress are required for all major development projects." (Q) Does this mean two separate driveways or two separate roadways?

Page S-31 (pgh 1): How big is the Sheriff's Department staff for the Community Relations Unit? How many active neighborhood watch groups exist?

1

Page S-33 (pgh J.1): (Q) Is there discussion of creating safer crossings at major intersections through means of "pedestrian islands" or other means? (See also pg. S-41; objective S 6.2; Policy S 6.2.4. Also see Obj S.6.3; Pol S 6.3.2 for persons with disabilities) (Q) Are the City and County working to improve bicycle paths?

Page S-34 (K.7): Will a map identifying floodplains be made available to the commission and the public?

Page S-34 (K.9): Are the City and County preparing policies for fire-safe development?

Page S-34 (K.10): I've noticed over the years that many residents do not have address numbers on their homes. Will the city create an ordinance that requires street numbers that are clearly visible from the street? (See pg. S-39, Objective S3.3; Policy S.3.3.3)

Page S-35 (K.20): "analyzing traffic accident data and providing traffic safety improvements where needed, promoting walkable neighborhoods..." (Q) When was the last time the City analyzed traffic accident data? What approach was taken? Was current accident data compared to earlier years on major roadways? Are there plans to do so in the near future? Will the city consider modifying speeds on some roadways?

Reference Info: from Insurance Institute for Highway Safety
http://www.iihs.org/research/qanda/speed_limits.html

9 | Are speed limits based on the 85th percentile traffic speed appropriate?

It has been argued that measuring the speed distribution of a roadway and then setting the speed limit so that 85 percent of motorists would be in compliance reduces the need for enforcement and, at the same time, reduces crash risk by narrowing variation among vehicle speeds. However, numerous studies of travel speeds on rural interstate highways have shown that 85th percentile speeds increased when speed limits were raised to 65 mph and then continued increasing. The 85th percentile is not a stationary point. It is rather a moving target that increases when speed limits are raised. If speed limits are raised to meet a current 85th percentile speed, a higher new 85th percentile speed will soon result.

Some claim that higher speed limits would reduce crashes. Is this true?

No. Advocates of higher speed limits have claimed that research on speed variation indicates faster speeds are not hazardous. They cite David Solomon's research from the mid-1950s that seems to show an increase in crash likelihood among drivers traveling slower than the average speed and a minimum of crashes at 5-10 mph above the average speed. However, the speeds of the crash-involved drivers in these studies were based on self-reports. It is well known that drivers exceeding speed limits are likely to deliberately underestimate their speeds. Such underestimation can account for much of the apparent underinvolvement of moderately high-speed drivers in crashes. Later research found that simply removing the crashes involving intersections and turning

1

maneuvers from the Solomon data eliminated the overinvolvement of slower drivers in crashes.²⁰ More important, the Solomon research addressed only speed variation, not speed limits.

Page S-40 (Objective S 4.2; Policy S 4.2.2): Does the city maintain an inventory of businesses that "store or generate large amounts of hazardous materials"?

Page S-41 (Objective S 6.3; Policy S 6.3.1): Will the City and County work together to allow Homeless shelter and transitional housing year-round for unfortunate in our community?

Page S-42: Emergency Planning: Are adequate hospital facilities to protect the health and safety of our residents considered in our general plan. It seems to me that we need to make provision for another hospital and ensure that it is built in an area that is least likely to be damaged by earthquakes, floods, and fires.

Page S-42 (Objective S 7.2): Has the city developed procedures to assist residents who's properties are damaged in order to expedite their recovery?

Page S-43 (Part 3: Implementation: #1): "On the Land Use map, designate areas that are subject to potential damage ... for appropriate land uses, such as open space or low-density residential, in order to reduce exposure of persons and property to hazardous conditions." (Q) Under what circumstances would it be appropriate to allow even low-density residential to be created in an area "subject to potential damage"?

Page S-44 (#13): By what criteria would the city determine the effectiveness of the Safety Element?

Notes: This Safety Element does not contain some of the details of the 2001 Safety Element, such as the Risk Assessment Matrix, crime statistics, and identification of Hazardous Materials risks. Will these be added?

When will the public have an opportunity to discuss the details of this element?

1

Letter No. D38

Letter from Diane Trautman, February 21, 2011

Response 1

The commenter asked why the questions that she submitted to the OVOV General Plan Elements were not included in the OVOV appendices. The comment raises issues pertaining to the General Plan and not the Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.



February 21, 2011

City of Santa Clarita
Jason Smisko, Senior Planner
23920 Valencia Blvd., Suite 300
Santa Clarita, CA 91355-2196

Dear Mr. Smisko,

The Democratic Alliance for Action is requesting that the City of Santa Clarita Public Comment period for One Valley – One Vision be extended so that more people can participate and so that people who are currently reviewing the plan can offer their input.

It is impossible for citizens to review, digest and understand such massive documents. Since these documents will have far reaching impact on citizens and our Valley for many years, it behooves us not to rush into adopting them.

We are aware that there has been outreach and information disseminated but we believe more time must be allowed to make sure any problems are worked out.

1

Respectfully,
Michael Kulka
Michael Kulka
President, Democratic Alliance for Action
PO Box 802481
Santa Clarita, CA 91380-2481
President@DAA.org

Letter No. D39

Letter from Democratic Alliance for Action, February 21, 2011

Response 1

The commenter requested that the comment period be extended. The Draft Program EIR comment period was extended to 90 days (an extension of 45 days in addition to the standard CEQA 45-day review period).

RECEIVED

Jason Smisko

From: tsurak @dslextre.me.com [tsurak@dslextre.me.com]
Sent: Monday, February 21, 2011 11:10 PM
To: Jason Smisko
Subject: OVOV

FEB 21 2011

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

I am submitting the following comments in response to the Draft EIR and Draft OVOV General Plan.

1

Page 3.16-28 of the Draft EIR states "The above goals, objectives, and policies will help ensure that the City's future residents would be provided with adequate parks and recreation facilities to meet the proposed General Plan goal of 5 acres of parkland per 1,000 residents." I disagree. The DEIR clearly states "The proposed General Plan requires a goal of 5 acres of parkland per 1,000 population throughout the OVOV Planning Area." There is no indication that the existing shortfall of 639 acres of parks and recreation facilities necessary to meet this goal will ever come close to being met. The fact is that the City has only added 179 acres of parkland over the last 20 years, and has only identified a potential 213 acres of proposed new parkland, which is only one-third of what is needed to meet the existing 639 acre shortfall. Even the cited 213 acres of proposed parkland is suspect, since 75 acres of this amount is attributable to Placerita Canyon, which is outside the City limits. In any case, there is no zoning of land in the OVOV which specifically addresses where the remaining two-thirds of the existing shortfall will be located. The DEIR reinforces this point by stating "The City is currently in a state of deficit and with the projected buildout population would remain in a state of deficit unless the City acquires the needed amount of parkland." The City should not be allowed to continue to hide its failure to meet this requirement by simply stating "the City has developed a separate master plan for parks to prioritize actions needed to expand parkland and services." This is an unacceptable approach for addressing this critical failure. As discussed below, the OVOV should not be adopted unless this deficiency is specifically corrected in the document.

2

The Draft EIR even suggests that the City's General Plan will not be sufficient for meeting the shortfall. It states that "extended hours of operation, and joint-use between the City, County, and other agencies would ensure that City's future residents have adequate park space and adequate facilities." There is no provision anywhere in the Quimby Act or the existing General Plan which allows for extended hours as a substitute for the designated acres of parks and recreation facilities. And it is inconceivable that the DEIR would suggest that residents of the City should even have to consider using any facilities outside of the City such as "facilities like the Castaic Sports Complex." (p. 3.16-23) The City has apparently chosen to disregard its responsibility to provide adequate acreage for meeting its park requirements. It is mathematically impossible for the City to rely on Quimby Act maximum developer contributions of 3 acres per 1000 residents to achieve its goal of 5 acres per 1000 residents. And in contrast to what the County may wish to believe, the County has an even greater shortfall of suitable acreage in its DEIR than the City does. (Also for the record, the County has also adopted the City's goal of 5 acres per 1000 residents, not 3 acres per 1000 as stated on p. L-40.) Therefore, it is unacceptable for the City's DEIR to make any reliance on the use of County facilities as meeting the City's specified shortfall of parks and recreation facilities.

3

4

5

Goal CO 9 states that there should be an "equitable distribution" of park facilities, and Objective CO 9.1 states that priority should be given to areas not now adequately served. Yet there is no specific land identified in the OVOV for accomplishing that objective. The existing general plan has been in place for over 20 years and areas identified in that general plan as being underserved with respect to parks have yet to be addressed. The OVOV continues to ignore meeting the needs of these underserved

6

2/23/2011

areas. P. 3.16-28 of the DEIR states "policies require use of appropriate zoning tools to obtain adequate park and open land." Consistent with this statement, there should be no zoning changes allowed near any areas previously identified as being underserved until suitable parkland is specifically identified and set aside for meeting these needs. This includes the proposed MX-N designation for the Smiser property.

6

P 3.16-29 states "the proposed General Plan has more definitive strategies (OSAP) to acquire and develop parkland when compared the existing General Plan." Even is this were true, the fact that the OVOV still does not meet the existing or planned requirement for parks and recreation facilities precludes adopting the OVOV without significant revisions, including a requirement that the existing park goals and objectives for both land acreage and location will be met.

7

I can be reached at 213-244-3912 if you have any questions regarding the above.

8

Thomas Surak
23712 Adamsboro Dr.
Newhall

2/23/2011

Letter No. D40

Letter from Thomas Surak, February 21, 2011

Response 1

The City acknowledges your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 2

The commenter states that it is doubtful that the shortfall of 639 acres of parkland can be met, even with a master Plan for parkland acquisition. The commenter does not believe that OVOV should be adopted until this deficiency is corrected in the document. The Draft EIR is required to address potential impacts of the proposed OVOV Plan-including parkland deficiencies which have been called out. Consequently there are no deficiencies to the Draft Program EIR. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter quotes the Draft EIR but states that there is no provision in the Quimby Act or the General Plan which allows for extended hours as a substitute for designated of parks and recreation. The Draft EIR states that extended hours is one mechanism for allowing people to enjoy parkland facilities. In addition, the Quimby allows the City to acquire parkland as part of the development process and does not discuss the operations of parks. The Draft EIR does not state that extended hours compensate for provision of parkland.

Response 4

The commenter stated that it is inconceivable that facilities such as the Castaic Sports Complex should be considered for use by Santa Clarita citizens. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter states that it is impossible for the City to achieve its parkland goals without requiring 5 acres per 1,000 residents. Additionally the commenter states that it is unacceptable for the City to use any of the County's facilities for meeting the shortfall of City parkland requirements. The City does not rely upon the County of Los Angeles for its parkland facilities. Draft EIR Section 3.16 Parks and Recreation, page 31.6-24 includes policy for 5 acres per 1,000 residents as follows:

Policy CO 9.1.1: Common park standards shall be developed and applied throughout the Santa Clarita Valley, consistent with community character objectives, with a goal of five acres of parkland per 1,000 population.

Response 6

The commenter states that the OVOV Plan does not designate parkland for those that are underserved by way of parkland facilities. The commenter further states that there should be no zoning changes allowed near any areas designated as being underserved until suitable parkland is identified and set aside for those uses including the proposed MXN designation for the Smiser property. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter states that while the OVOV Plan presents strategies to develop parkland it still does not meet the existing or planned requirements for parks and recreation facilities needs with significant revising the OVOV Plan. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

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February 21, 2011

RECEIVED

FEB 22 2011

**COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA**

Mitch Glaser
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90021

TITLE
One Valley One Vision

COMMENTS

As both residents of the Santa Clarita Valley and members of the Sierra Club, we are extremely concerned about the ramifications of the "Area Plan Update (One Valley One Vision)." The proposed increases to population density have long-term consequences that seem absolutely shocking when one considers the economic, environmental, and societal pressures of the times. The proposed OVOV plan allows for increases in development that will substantially degrade the quality of the environment in northern Los Angeles County. The proposed plan has some good information about green building, environmental sustainability, etc. but is flawed because it lacks the follow-through, the strong language, required to put these great ideas into action.

1

- Opposition to Elimination of the Development Monitoring System

The County OVOV Plan proposes a 420,000 increase in projected population for the Santa Clarita Valley. This will substantially impact many infrastructure needs, including those required to be addressed by the Development Monitoring System. What is that, you ask? It would seem some of the County staff were asking the same question.

The County version of the OVOV proposes to eliminate the Development Monitoring System DMS). We oppose this proposal. Further, we assert that such a proposal is not legal since it would make the General Plan update for the Santa Clarita Valley inconsistent with the LA County General Plan.

2

The DMS is a General Plan Amendment (SP 86-173) that was authorized by the Board of Supervisors on April 21st, 1987 in all Urban Expansion Areas such as the Santa Clarita Valley. It was developed with the overview of James Kushner, acting as Court referee. Since it was the result of a Court settlement for this public interest litigation brought by

the Center for Law and the Public Interest, the County cannot ignore it; pretend it doesn't exist, or make it go away.

This litigation was brought on behalf of the public under a situation exactly similar to the one we have today, i.e., the County was proposing a huge population increase without sufficient infrastructure to support it. The population projection will then enable extensive additional housing approvals because the "Plan" will project inadequate housing for this enormous increase, making the developers very happy. However, one must consider: what about schools, roads, sewers and libraries to support this enormous increase in population? What about the quality of life of existing residents?

That's what the DMS is supposed to address. In an article written by Mr. Kushner for "Zoning and Planning Law Report" in May of 1988, he stated:

"The Los Angeles County Development Monitoring System (DMS) utilizes computer technology to determine capital facility supply capacity and demand placed upon that system by each approved and proposed development. The computer warns decision-makers when demand exceeds capacity and instructs planners on system capacity expansion to meet projected demand."

If there aren't enough school classrooms to serve the new development, the project must be downsized, delayed or denied until there are. This also goes for sewer capacity, library facilities, water, roads and fire service.

Additional legal challenges to ensure the implementation of the DMS followed, but after successful litigation by the Hart District on behalf of schools in the early 90s and by the Sierra Club and other groups on behalf of schools and libraries in 1993, the County has begun to implement the DMS for at least these two areas.

The Sierra Club was also a party to the 2000 Court Decision on the Newhall Ranch Project. Eventually, the Project was set aside in part because it "failed to comply with the DMS section of the General Plan as it relates to water supply."¹ The Return of the Writ and the Findings of the County on its approval of the Newhall Specific Plan state that a DMS analysis will be conducted for each tract map in this project.

It is too convenient that Impact Sciences is the EIR Consultant for both the County on OVOV and on the Newhall Ranch Project for Newhall Land and Development (Re-organized Newhall Land). We believe that the proposal for the elimination of the DMS represents a significant conflict of interest for this company, since they are representing both the developer and the County.

Further, the OVOV Plan apparently will not meet critical portions of the DMS requirements, particularly in the area of traffic (a congestion level E is not acceptable) and water supply. (See OVOV Comment Letter dated Oct. 28, 2009

¹ Page 32, Statement of Decision of Judge Roger Randall; Kern Case 238324-RDR

regarding sufficiency of water supplies for Plan build-out submitted by Castaic Lake Water Agency).

2

We believe that the DMS must remain in the OVOV Plan both because it is required by law for consistency with the General Plan and as required mitigation for the substantial population increase proposed by OVOV.

- Infrastructure

Since the year 2007, California has not needed tens of thousands of new homes (especially in newer towns such as Santa Clarita). If anything, people should be moving into homes in more urban areas where there are more jobs, public transportation, etc. Foreclosures, bankruptcies, and losses of adequately paying jobs have resulted in a surplus of unoccupied homes; including new homes. Many new homes and small businesses in the Santa Clarita Valley remain uncompleted and/or empty because of the recession, a sick economy, state and federal deficits, and a long-term lack of demand for more new homes. California has the worse debt and economy of any state in the country. Citizens have lost much income and savings over the last year and the project may soon be asking them to spend and buy in an isolated, remote area.

3

Due to the troubling economic times, many schools in the Santa Clarita Valley have seen a huge drop in enrollment and thus have lost state A.D.A. monies in addition to the extremely detrimental budget cuts coming from both the state and federal government. This has meant that local school districts have had to halt the building of new schools, increase class-sizes, and have either pink-slipped and or let-go of qualified teachers. A proposed increase in density and a lack of the DMS does not make our current situation any better.

- Biology

The Santa Clarita Valley has been working on increasing major wildlife linkage corridors and creating open space. With the added density recommended in the OVOV the animals that exist on or utilize the current open space along the edges of our valley would lose their habitat and foraging grounds. Native habitat will be destroyed and many of the few pockets of open space will be just that, "islands" within the city. How will these pockets be of any use to the animal species that frequent these wildlife corridors? This makes no sense. Animals that transition through the area (looking for food and water, etc.) will have nowhere to go. Communities are scattered around so as to create obstructions to any wildlife corridors. Why is this?

4

Also, the OVOV could be much stronger in reference to encroachment on the floodplain of the last major wild river in Southern California. The upper stretch of the Santa Clara River is part of one of five areas in the world with a Mediterranean-type habitat. It includes more imperiled species than any other region in the continental United States and as such is biodiversity hotspot. Irrevocably transforming the habitat of many endangered species into row after row of urban sprawl is not the answer.

5

The OVOV proposed plan says that it will address developments within the city and try to prevent sprawl developments and destruction of the river but also includes the proposed Vista Canyon development. This seems very inconsistent. Vista Canyon is the exact opposite of what we should be allowing as new developments within the city's boundaries.

6

7

Also, Whittaker-Bermite is mentioned in OVOV. This development should have no building on the land due to its location directly atop the San Gabriel fault, not to mention the on-going clean-up on the property. This land should really be set aside as parkland.

8

Another concern that we have discovered is the lack of the identification of Blue-line streams. This is unacceptable. These streams are the tributaries to the Santa Clara River and should be protected as such.

9

On a side note, fossil resources should be housed at Los Angeles County Museum of history w/ donation for supporting the storage of materials

10

There are many places in OVOV that state that the goal/action to be followed is to promote/encourage environmentally responsible actions. This language needs to be stronger. Saying the city will "promote the use of environmentally-responsible building design...and provide examples of these standards" sounds great but truthfully is not enforceable. The document states that individuals should "consider the principles of environmental sustainability." What does that mean? The document should state that all new developments will be required to have green-building, xeriscape, solar paneling, etc:

11

- Traffic

On page 3.2 – 17 it is claimed that the recently completed Cross Valley connector has already substantially reduced traffic volumes on portions of Soledad Canyon Road and other major arterials in the city. A glance at the EIR for the River Park project shows that all intersections impacted by the project's Cross Valley connector will be worse off after build-out than before. The present traffic levels do not reflect build-out conditions.

12

On page 3.2-33 table 3.2 – 6 shows that there will be an increase of 121% in trip ends between the existing situation and OVOV build out. There is nothing in the EIR which remotely mitigates this statistic. A comparison of the current general plan with OVOV shows a 3% gain in trip ends for OVOV over current at build-out. OVOV does nothing for us.

13

There are long lists of goals and objectives to be achieved by following certain policies that are described. For instance, transit oriented development and other trip reduction measures such as carpooling, flexible work, bicycle lanes, etc. are supposed to mitigate the documented LOS >= E problems. We already have these policies but there is no

14

evidence of any impact on traffic. There is nothing in the EIR which demonstrates any improvement to be gained by any of the proposed mitigations.

14

I 5, I 14 and other arterials will not get better by widening or expanding other roads in the SCV. This is because the network of roads is constrained by geography to flow through points of restriction. This is as good as it gets. Furthermore, there is apparently no accounting for the doubling of truck traffic on the I5 (mostly diesel) by 2020, further jamming traffic and further reducing the already bad air quality in the SCV.

15

Finally the assumptions made to get the SCVCTM when using the standard traffic model are most likely a rosy scenario based on pie in the sky estimates of local vs nonlocal jobs and the types of jobs that are expected. This means that all the LOS values are best case. With so many bad LOS segments and intersections already the only solution to mitigate future traffic is development density reduction for all projects.

16

- Air Quality

Previous urban sprawl and development that relies on individual car transportation has contributed to Santa Clarita having poor air quality, and the current plan continues this pattern. Air pollutants directly related to traffic include ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, and coarse and fine particulate matter. Our abundant sunlight hastens the photochemical reactions of these pollutants, causing increased asthma and bronchitis. Nitrogen dioxide depresses the immune system. These consequences are most notable in the very young, whose developing bodies are most vulnerable. It is obvious that the cumulative air pollutant emissions in the area would contribute to the degradation of local and regional air quality. The SCV already exceeds Federal air pollution standards for particulate matter generated from dust and diesel pollution. (information from the AQMD)

17

According to AQMD guidelines no residences should be built with 150' feet from the roadway, as this is where vehicle-caused pollution is most concentrated. No residences should be built directly adjacent to major transportation corridors for truck and vehicle traffic. Also, where development begins (150 feet from a roadway) there should be berms and landscaping to reduce pollution.

18

In addition, long term effects result from the additional traffic on our local roads and freeways. Climatologists agree that greenhouse gases are causing global warming and even the Supreme Court, in its decision several months ago, said that EPA must address Carbon Dioxide as a pollutant. These two facts alone suggest that further discussion of global warming should appear in this document.

19

The already approved construction, and future construction will have their own related pollution. However, construction emissions have a finite lifetime – operational emissions will just keep increasing with significant unavoidable impacts. A doubling of truck traffic on I-5 by 2020 will make things even worse. Previous studies have provided

20

exhaustive analyses of the many impacts of emissions on air quality. Growth must be significantly reduced from the current recommendations in the county OVOV plan.

20

- Global Warming

The Sierra Club agrees with the Attorney General’s letter regarding the lack of information in the OVOV EIR on the impacts of global warming. The OVOV plan inadequately addresses the topic of global warming.

21

- Water Supply

In an October letter to Los Angeles County regarding the OVOV General Plan update, the Castaic Lake Water Agency asked that their review of water supply be delayed until the Department of Water Resources releases its currently due “State Water Reliability Report,” and a review of that report can be made. We concur with this request and ask that the County delay our review of this issue as well. This report will take into consideration the most recent biological opinions that affect State Water deliveries to Southern California, as well as the potential for reduced snow packs in the Sierras that will further limit the state water supply. Since new development must depend on this state water supply, it is imperative that the County have the most recent and best information regarding those supplies.

22

We would like to re-iterate statements entered into the record regarding the Newhall Ranch project Specific Plan that is a part of this General Plan Update. Valencia Water Co. has no adjudicated rights to ground water or water extraction from the Santa Clara River. If other currently fully entitled projects require that water, then the ground water on which Newhall Land has based its supply will have to be delivered to those other projects. The County should also note, as stated in the CLWA letter, that Newhall Land and Farming has no “wheeling” rights for its Kern County Nickel Water Transfer.

23

Further, last year CLWA was forced to buy the withdrawal priorities from Newhall Land and Farming to provide an adequate water supply for current residents in the SCV during 2009. It is important that the County be aware of the severe shortfall that could have occurred, had CLWA not been able to obtain this withdrawal priority. A planner should calculate the additional water cutbacks that would have occurred, had we not had a real estate slow down and all currently entitled housing had been built. This is a requirement of the County Development Monitoring System. It is unfair to the public and to the business community to demand such potentially severe cutbacks due to the County’s failure to understand and plan for the severity of the water supply problem.

24

The County should also note that the perchlorate clean up project is still not on line and functioning as of the date of this letter, although CLWA said it would be functioning in November 2009. Further, the production from this facility is estimated now to be only

25

50% of the previous production of these wells². Since the Saugus Aquifer is supposed to be the drought back up source for water in the Santa Clarita Valley, the failure of this clean up project to begin operation as it was projected five years ago, and now to produce only 50% of its former water supply, is a substantial problem. The Sierra Club has requested in all CEQA comments for the last several years that the County delay further approvals until this facility is actually functioning.³ We make that request again.

25

- Green Building

Additional points that we feel should be addressed fall under the topic of green building standards. We feel that the OVOV document is lacking in terms of some significant changes that could be made to the way our city operates on a daily basis. For example, we feel that recycling should be available to residents of all developments (condos, townhouses, apartments, etc).

26

Also, solar panels, native landscaping in all developments, xeriscape, low-impact development practices, and LEED building design practices should be included in all new developments. These shouldn't be optional items. They need to happen everywhere new development occurs.

Sincerely,

Katherine Squires

Conservation Chair, Santa Clarita Group

² See attached chart of projected water supply production from remediated Saugus Wells

³ See attached Sierra Club, Angeles Chapter Resolution

Letter No. D41 Letter from the Sierra Club, February 21, 2011

Response 1

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The City has chosen not to include a development monitoring system (DMS) in its General Plan. Additionally, the County has chosen not to include a DMS program in their General Plan effort as well.

Historically, in 1987 the County of Los Angeles Department of Regional Planning (DRP) initially established DMS, which was a program to ensure that in quickly expanding areas, new development, public service infrastructure, and service capacity were closely monitored for inefficiencies. The DMS program monitored the expansion costs for schools, sewers, fire stations, libraries, and water services in urban expansion areas, and ensured that from a planning perspective, services were expanded to meet future growth projections.

The County's General Plan no longer identifies urban expansion areas, and many of the expansion costs for services are now covered by specific development fees and by CEQA. Thus the County DRP will no longer utilize DMS. Therefore, consistent with County planning the City no longer sees the need to include DMS for planning purposes.

Response 3

The commenter stated that there is no need for additional homes due to vacancy rates and people should be moving into urbanized areas. As a result of the poor economy schools have been impacted. A proposed increase in density and a lack of DMS does not improve the situation. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter states that the increased density will impact wildlife movement corridors and will create wildlife pockets. The discussion of habitat connectivity in Section 3.7, Biological Resources of the Draft EIR begins on page 3.7-31 and includes discussion of the South Coast Wildlands San Gabriel-Castaic Connection. Discussion of potential impacts to wildlife movement corridors begins on page 3.7-49 and concludes that the OVOV Plan would potentially habitat linkages. This impact would be potentially

significant, as these linkages provide viable opportunities for the exchange of individuals and genetic information among populations in the core habitat areas of the Planning Area.

Response 5

The comment states that CDFG is concerned about the impacts to biological resources, especially those of the Santa Clara River watershed. The comment continues by stating the importance of linkages, especially the linkage of the San Gabriel Mountains to the Castaic Range.

Discussion of potential impacts to the Santa Clara River in Section 3.7, Biological Resources of the Draft EIR begins on page 3.7-45. The proposed plan would preserve as open space the Santa Clara River corridor and its major tributaries to accommodate storm water flows and protect critical plant and animal species and development on properties adjacent to, but outside of the defined primary river corridor, shall be located and designed to protect the river's water quality, plants, and animal habitats. Protection of sensitive wetland and woodland habitats, state and federal-listed species habitats, and habitats within SEAs and along the Santa Clara River and its tributaries (Policies CO 3.2.1, 3.2.2, 3.2.3, and 3.2.4, 3.3.1) will also help to protect wetland habitats within the Planning Area.

Response 6

The commenter states that the OVOV plan says that it will address developments within the City to prevent sprawl but includes the Vista Canyon project. The comment raises issues that do not appear to relate to the OVOV DEIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter states that the Vista Canyon project is the exact opposite of what should be allowed in the community. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The comment notes that Whitaker Bermite is mentioned in OVOV and there should be no development on the land due to the San Gabriel fault not to mention ongoing clean-up. The land should be set-aside as parkland. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed

project. However, because the comment does not raise an environmental issue, no further response is required.

Response 9

The commenter noted that there is a lack of identification of blue line streams. Blue line streams are identified in the Conservation and Open Space Element of the General Plan.

Response 10

The comment states that fossil resources should be housed at the Los Angeles County Museum of History with a donation for supporting the storage of materials. Draft Program EIR, Section 3.8 Cultural Resources, provides for fossil finds as follows:

MM 3.8-4 Where determined as part of a CEQA review, prior to grading, as part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site to salvage scientifically significant fossil remains. The duration of these inspections depends on the potential for the discovery of fossils, the rate of excavation, and the abundance of fossils. Geological formations (like the Saugus Formation) with a high potential will initially require full-time monitoring during grading activities. Geologic formations (like the Quaternary terrace deposits) with a moderate potential will initially require half-time monitoring. If fossil production is lower than expected, the duration of monitoring efforts should be reduced. Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged. A report of the inspection testing program shall include an itemized inventory of the fossils, pertinent geologic and stratigraphic data, field notes of the collectors and include recommendations for future monitoring efforts in the City's Planning Area. Prior to grading, an agreement shall be reached with a suitable public, non-profit scientific repository, such as the Los Angeles County Museum of Natural History or similar institution, regarding acceptance of fossil collections.

Response 11

The commenter states that language within OVOV promotes and encourages action and this verbiage should be stronger. The commenter stated that all new developments will be required to have green-building, xeriscape, solar paneling etc. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 12

The comment reiterates conclusions from the Draft Program EIR concerning reduced traffic impacts as a result of the Cross Valley Connector. The comment states that the present traffic levels do not reflect buildout conditions. The commenter states that the Riverpark EIR shows that with the Cross Valley connector traffic impacts would be worse after buildout.

The comment regarding reflecting traffic conditions and the Cross Valley Connector restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

We do not concur that the River Park EIR concluded that the Cross Valley Connector would create increased traffic impacts. Nonetheless, the comment addresses general subject areas, which received extensive analysis in the Draft EIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 13

The comment states that nothing mitigates an increase of 121% traffic trips. The commenter concludes that OVOV does nothing for the community. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 14

The commenter states that there is a long list of goals and objectives but there is no evidence of any impact on traffic. The commenter believes that there is no demonstration that there is any improvement to be gained by any of the proposed mitigations. The comment addresses general subject areas, which received extensive analysis in the Draft EIR, Section 3.2, Transportation and Circulation. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 15

The commenter states that I-5 and SR-14 and other arterials will get worse by widening or expanding roads in the Santa Clarita Valley. The commenter further states that there is no accounting of the doubling of truck traffic on I-5 by 2020, which will further impact traffic and contribute to air quality impacts. The comment addresses general subject areas, which received extensive analysis in the Draft EIR, Section 3.2, Transportation and Circulation and 3.3 Air Quality. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 16

The commenter believes that the assumptions in the SCVCTN are most likely a rosy scenario and consequently all of the LOS values are best case. The commenter believes that the only way to address traffic impacts is to reduce density. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 17

The commenter noted that urban sprawl and development have contributed to the air quality in the Santa Clarita Valley and can affect the very young whose bodies are still developing. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 18

The commenter reiterated AQMD regarding guidelines to residential development along roadways. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 19

The commenter states that the long-term effects from additional traffic on local roads and freeways are causing global climate change and suggest that further discussion of global warming should appear in this document. A complete and thorough discussion of global warming is found in its own Draft EIR section 3.4, Global Climate Change.

Response 20

The commenter concludes that with additional growth and future construction, construction emissions will increase and significant unavoidable impacts will continue. Consequently, the commenter recommends that growth must be reduced from the OVOV Plan. The comment addresses general subject areas concerning air quality, which received extensive analysis in the Draft EIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

The comment addresses general subject areas, which received extensive analysis in the Draft EIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 21

The commenter states that they concur with the Attorney General's concern regarding the lack of information in the OVOV EIR on the impacts of global warming. The commenter concludes that the OVOV Plan inadequately addresses the topic of global warming. The comment addresses general subject areas, which received extensive analysis in the Draft EIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 22

This comment states that a letter from the Castaic Lake Water Agency (CLWA) dated October 28, 2009, prepared in response to the One Valley One Vision (OVOV) General Plan update process, "requested that the EIR be delayed until after the Department of Water Resources issues a final State Water Reliability Report." The referenced CLWA letter is attached to this comment letter.

First, the CLWA comment letter does not request that the OVOV Draft EIR be delayed as stated in this comment. Second, the CLWA letter does not request that either EIR await completion of a “final” State Water Project (SWP) Delivery Reliability Report. In fact, CLWA’s letter states it is “supportive” of Los Angeles County’s efforts to update the Santa Clarita Valley Area Plan, a component of the OVOV, a joint planning effort with the City of Santa Clarita. CLWA’s letter also states that conclusions about water supplies “should be drawn from a future estimate of overall water supplies prepared using an updated Reliability Report for the SWP supply component. The updated Reliability Report is anticipated by year end 2009.”

In short, CLWA simply wanted the County to rely on the best available information from the California Department of Water Resources (DWR) in its OVOV process, and CLWA pointed out when it expected to receive DWR’s updated estimates of the SWP’s delivery reliability, by year end 2009. Since CLWA issued its October 28, 2009 letter, DWR has issued the updated “State Water Project Delivery Reliability Report” (2009). DWR released this updated report in January 2010. While the 2009 State Water Project Delivery Reliability Report was issued in draft form in January 2010, it nonetheless represents DWR’s update to the prior 2007 report, and it contains DWR’s updated estimate of the current (2009) and future (2029) water delivery reliability of the SWP. Importantly, the Draft EIR was not issued until DWR released its updated report. The Draft EIR also provided the most up-to-date information available at that time, based on DWR’s updated report. As stated in the Draft EIR:

*In an effort to assess the impacts of various conditions on SWP supply reliability, DWR released the Draft State Water Project Delivery Reliability Report, December 2009 (2009 DWR Delivery Reliability Report). A copy of this report is incorporated into this EIR by reference and is available for public review on California’s website at, <http://baydeltaoffice.water.ca.gov>. The report is an update to the State Water Project Delivery Reliability Report, 2007 issued as final in 2008. The report assists SWP Contractors in assessing the reliability of the SWP component of their overall supplies. The DWR computer-based reliability projections have been applied to CLWA’s maximum Table A Amount yields in tabular form in **Tables 3.13-11 through 3.13-14**, later in this document.^[1] The results show that adequate water supplies are available to meet the potable and non-potable demands of the proposed General Plan buildout in the Basin without resulting in significant environmental impacts to the Santa Clara River, the local Basin, or downstream users in Ventura County. (Draft EIR, **Section 3.13, Water Service**, pages 3.13-4 and 3.13-5.)*

The Draft EIR stated that it used or relied upon numerous technical reports and other documents, including DWR’s draft 2009 State Water Project Delivery Reliability Report. Draft EIR, p. 3.13-11.) It also incorporated by reference the information presented in DWR’s 2009 report. (Draft EIR, p. 3.13-4.)

[1] Subsection CLWA Imported Water Supplies and Facilities of this Section include CLWA’s SWP and non-SWP imported supplies for the Santa Clarita Valley (see Tables 3.13-11 through 3.13-14).

In assessing the projected average/normal year, single-dry year, and multiple-dry year water supplies and demands, the Draft EIR also used DWR's draft 2009 State Water Project Delivery Reliability Report to calculate the amount of CLWA's available SWP Table A supply. (See Draft EIR, Table 3.13-13, footnote 1; Table 3.13-14, footnote 1; and Table 3.13-15; footnote 2.) Based on the above, the Draft EIR used the best available information from DWR in estimating CLWA's available SWP supplies.

Response 23

The commenter requested that comments regarding the Newhall Ranch project which is a Specific Plan and a part of the OVOV Plan. The commenter states that the Valencia Water Company has no adjudicated rights to groundwater or water extraction from the Santa Clara River. Additionally, Newhall Land and Farming has no "wheeling" rights for its Kern County Nickel Water Transfer. Newhall Ranch brings its own source of water to its project. Therefore, while the Newhall Ranch Specific Plan is discussed in the OVOV document, water supply and rights are not. No further response is required.

Response 24

The commenter stated that it is unfair to the public that the water supply shortage that could have occurred if there was not a downturn in the economy and all entitled housing has not been built. Please see Draft Program EIR Section 3.13 Water Service, which concludes that there is enough water service for buildout conditions within the City of Santa Clarita.

Response 25

The commenter states that the Saugus Aquifer is supposed to be the drought back-up source for water in the Santa Clarita Valley, and the potential lack of water source due to the perchlorate contamination is a substantial problem. Section 3.13 Water Service page 3.13-139 through 144 discusses the impacts of perchlorate on the groundwater supply, perchlorate impacted water purveyor wells, restoration of perchlorate impacted water supply, and outside the CLWA Service Area. The Draft Program EIR concluded that

Impacts on water resources within the CLWA service area and East Subbasin, including impacts associated with the adequacy of water supplies, groundwater recharge, and perchlorate contamination would be less than significant and no additional mitigation measures are required.

Response 26

The commenter believes that not enough green building standards have been addressed in the OVOV document. The commenter believes that the document is lacking in terms of some significant changes in the way that the City operates on a daily basis. The commenter believes that green building shouldn't be optional its and they need to happen wherever development occurs. We direct the commenter to Draft Program EIR Section 3.4, Global Climate Change, Table 3.4-9. Consistency with 2006 Climate Action

Team Report outlines how policies within the OVOV plan are consistent with adopted Global Climate Change policies. Nonetheless, the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

RECEIVED

FEB 22 2011

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

Susan M. Carey, Esq.
27143 Crystal Springs Road
Canyon Country, CA 91387

February 21, 2011

Mr. Jason Smisko, Senior Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 302
Santa Clarita, CA 91355

RE: Comments on the Draft Program Environmental Impact Report for City of Santa Clarita OVOV General Plan; State Clearinghouse No. 2008071133

Dear Mr. Smisko:

I have the following comments regarding the DEIR for the City's OVOV General Plan that I would like to see addressed in the Final DEIR:

1. General Deficiencies in the DEIR and OVOV PLAN. The DEIR and OVOV Plan are legally inadequate for failure to comply with CEQA requirements as described in the letter dated December 1, 2009 from the Department of Justice of the State of California ("DOJ Letter"), and the letter dated November 30, 2009 from the Natural Resources Defense Council ("NRDC Letter"), both of which were addressed to the Los Angeles County Department of Regional Planning regarding an earlier draft of the County's EIR, but which are relevant to the City's DEIR and OVOV Plan because the City and County EIRs and OVOV Plans are 90+% identical content (especially as to the aspects critiqued by the DOJ and NRDC Letters), and the City's DEIR and OVOV Plan have not been sufficiently corrected to address the issues raised in the DOJ and NRDC Letters. Specifically, the following issues from those Letters remain applicable to the City's DEIR and OVOV Plan:

- 1-1. Inappropriate Comparisons.** There is excessive and inappropriate comparison in the City's DEIR of conditions at buildout under the current General Plan vs. the proposed OVOV Plan, rather than comparing current conditions as the baseline vs. conditions at buildout under the OVOV Plan. Although the DEIR does include comparison of current conditions against OVOV Plan buildout, the text continues to include multiple and lengthy instances of comparisons of bailout under the current General Plan vs. buildout under OVOV, and uses those comparisons to draw critical - and incorrect - conclusions regarding impacts under the OVOV Plan. As explained in detail and with legal citations in both the DOJ and NRDC's Letters, the correct baseline for comparison in an EIR is existing conditions - NOT conditions projected to buildout under the current General Plan.

The City's DEIR inappropriately uses the comparison of conditions at current General Plan buildout vs. OVOV Plan buildout in many places - for example, in the Transportation and Circulation element, this occurs on pages 3.2-33 (paragraph at the top of that page), 3.2-55 (paragraph at top of page), 3.2-58 (paragraph at top of page), 3.2-63 (paragraph at top of page), and 3.2-65 (paragraph at top of page), to cite a few instances. In many of these instances, the City draws the conclusion that there is no significant impact regarding a particular aspect of the OVOV Plan from the

1

comparison of buildout conditions under the current General Plan vs. the OVOV Plan, which is completely contrary to CEQA guidelines and established case law, as cited and explained in the DOJ and NRDC Letters.

The inclusion in the DEIR of so many comparisons using buildout conditions under the current General Plan as the baseline is inappropriate and misleading in that such comparisons understate the significant impact of many aspects of the OVOV Plan, and creates a false and misleading impression that conditions at OVOV buildout will be better than they will be. These incorrect and misleading comparisons should be removed from the DEIR as recommended by the DOJ and NRDC Letters, and only the correct comparisons/analyses using existing conditions as the baseline should be included to avoid the misleading effect of including the incorrect comparisons. This will allow the EIR to serve its intended purpose of providing an accurate and complete description of the environmental impacts of a project for review by the public and government officials.

1

1-2. Findings of Non-significance. As described in the DOJ's letter in the 3rd full paragraph on page 2, the DEIR's findings of non-significance for so many impact areas renders the DEIR deficient as a substantive document in that it fails to recommend and analyze the effectiveness of all feasible measures to mitigate adverse environmental effect as required by CEQA.

2

1-3. Mitigation Measures Voluntary and Unenforceable. As described in the DOJ's letter in the 2nd sentence of the 3^d full paragraph on page 2, mitigation measures tend to be voluntary and unenforceable, merely requiring that mitigation be encouraged or promoted, and not required. There is therefore no assurance that these measures will be effective or even required or enforced by the City, which means the intended outcome of each measure is also not assured.

3

1-4. Analysis of Alternatives. As described in the DOJ's letter in the last paragraph on page 2, the DEIR does not adequately analyze alternatives to the proposed Plan, as CEQA requires. The Preservation Corridor Alternative, identified by the DEIR as environmentally superior, is dismissed but is not shown to be infeasible. The DEIR rejects it on grounds that it would be less effective than the proposed Plan for meeting 3 of the Goals, but does not provide full consideration of Alternative 2 as required by CEQA and substantial evidence supporting its rejection.

4

1-5. Cumulative Impacts. As described in the DOJ's letter in the first full paragraph on page 3, cumulative impacts of the Plan considered with impacts for development in the remainder of the North County subregion are not adequately explored. The DEIR notably fails to analyze the effects on growth in the Antelope Valley when considered cumulatively with growth expected from the Plan in the SCV, which is in contravention to CEQA requirements regarding analysis of cumulative impacts.

5

2. On Page 3.3-75 of the DEIR, in the first paragraph under the heading Carbon Monoxide, the DEIR states:

6

"Ambient concentrations of CO that exceed state and/or federal standards are termed CO 'hotspots.' Intersections operating at LOS of E or F have the potential to create a CO hotspot.

"There are no known CO hotspots in the OVOV Planning Area under existing conditions. According to Tables 4-2 and 4-3 of the project traffic report (Appendix 3.2), future levels of service at principal intersections at buildout under both the existing Area Plan and General Plan and under the proposed Area Plan and General Plan will either remain the same or improve. As a result, there would be no potential for future increases in CO concentrations and CO hotspots in the OVOV Planning Area and CO impacts under this criterion would be less than significant."

6

I could not access the Tables cited in Appx. 3.2 due to the size of the Appendix file at the City's OVOV website, but in Table 3.2-10 on p. 3.2-53 in the Transportation and Circulation element of the DEIR (on p. 3.2-53), which is titled "ICU and LOS Summary for Principal Intersections – Existing Conditions vs OVOV Buildout Conditions (With Highway Plan Roadways)," several intersections are listed that that deteriorate in service level from existing conditions to buildout under the OVOV plan, and several that will be at LOS level E at OVOV buildout, which data contradict the statements quoted that there will be no deterioration in service levels at intersections and that there is no potential for future increases in CO concentrations and CO hotspots. The above-quoted paragraph should therefore be revised to correctly reflect the information included in Table 3.2-10, and to revise the conclusion so that it states that CO impacts would be significant.

3. In the Transportation and Circulation element, there are numerous references to the promotion of walking and biking as means of transportation in the planning area to reduce vehicle trips, air pollution and greenhouse gasses, but the increase in air pollution is going to increase the number of days designated as 'poor air quality' when the public is warned to avoid outside activities such as walking and biking, which will decrease the use of walking and biking as transport modes. There is also no analysis of the impact of our local extreme temperatures and weather in the Planning Area and how that may reduce the use of walking and biking as compared to what might be expected or experienced in other communities in more moderate climates. In other words, the expectations of the reduction in vehicle trips due to people walking and biking instead of driving is probably overstated due to our local weather which is often very hot, very cold or very windy.

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4. On page 3.19-3 of the Population Element, under the heading Jobs/Housing Balance, the second sentence needs clarification because the statement that "Achieving a jobs/housing balance can significantly reduce the total number of vehicle trips . . ." would only be true if (1) the jobs added within the Planning Area provide income sufficient to support the cost of the employee living within the immediate area, and (2) such jobs are suitable for and match the qualifications of the local residents, otherwise, the current population is likely to be displaced by persons qualified and/or willing to take the jobs created in the Planning Area, which I don't think is an intended consequence of the Plan.

8

5. On page 3.19-5, under the heading Regulatory Framework, SCAG Regional Housing Needs Assessment, an explanation should be added to this section as to whether the City, as a member in a COG planning region is REQUIRED by law to plan for and allow construction of housing units "to accommodate the housing growth estimated by the RHNA". This section as currently written implies that this is some kind of legal requirement, but I know there are other nearby cities, such as Simi Valley, Thousand Oaks and Santa Monica that have adopted growth restrictions, which indicates that there is a way to avoid any such legal obligation for a city or county to accommodate a RHNA housing allocation. If there is such a legal obligation for the City to participate in the COG and RHNA processes, and therefore allow construction of all the housing units allocated to the City, more explanation should be included of whether there are any limiting factors on the allocation for a particular area, such as quality of life considerations, health of the residents due to increased air pollution resulting from increased population, etc.

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If there is not such a legal obligation, the paragraph should be clarified to explain that, and also explain why the City has adopted the population growth numbers in Table 3.19-1 as the appropriate population for this area, and by adopting this Plan is fostering buildout to accommodate that tripling in population, when doing so will subject the residents to a significantly decreased quality of life, including traffic gridlock, hazardous levels of air pollution, unacceptable levels of greenhouse gas emission, high-density vertical housing and commercial development throughout the area that is incompatible with current lifestyles and neighborhoods, and the other negative impacts of high-density development.

6. On page 3.19-6, the sentence immediately above Table 3.19-2 should be revised by adding the words "for 2014" at the end of the sentence to clarify that the number of housing units described in that sentence is only to meet the RHNA allocation for the period 2005 to 2014, not the entire buildout period to 2035 which has been the relevant time period used in preceding discussion describing future housing units to be added to the area. Table 3.19-2 should also have the words "for 2014" added to the end of the title to make clear that the number of housing units in the table **are only to satisfy the allocation up to 2014**. Without these changes, the wording in the sentence above the table and the table are misleading in significantly understating the ENTIRE number of housing units that will be required to be built in the area under RHNA allocations for the entire period until 2035 buildout.

10

7. On page 3.19-9, the section titled Effectiveness of Proposed General Plan Goals, Objective and Policies should be revised to include explanation of how the City will consistently **apply and enforce** the goals, objectives and policies described above that section to prevent urban sprawl and unforeseen indirect growth impacts, given (a) that the goals, objectives and policies by their wording are not mandatory, and (b) there is a long history of the City permitting development of natural and undeveloped land, including allowing extension of roads and other infrastructure into undeveloped land, regardless of existing zoning and land use designations by approving zoning changes and General Plan amendments on a project-by-project basis. There are many examples of this, including Golden Valley Ranch, and Vista Canyon. The Planning Commission's recent approval of the Vista Canyon project is an especially glaring example of the City's approval of a project that clearly violates the goals, policies and objectives stated on page 3.19-8 and 9 in that the project destroys every square foot of the natural environment of the development area

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(except one small corner area) through grading and landfill (Goal CO.1, Objective CO 1.5, Objective CO 3.1), concentrates urban uses on undeveloped land surrounded by residential areas, destroying multiple components of the Valley's natural ecosystem (Policy CO 1.5.5, Goal CO 3, Policy CO 3.1.1). To assure application of the goals, objectives and policies in the OVOV Plan, they should be revised so that they are mandatory for all projects, and no zoning changes or General Plan amendments should be permitted by the City to allow projects that do not meet the goals, objectives and policies in the OVOV Plan.

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In addition, this section should include explanation of how the City will consistently and effectively enforce the policies affecting urban sprawl and development of natural, undeveloped, remote and open space in conjunction with the County to accomplish the purposes that are SHARED by the City and County by virtue of adopting similar policies in both OVOV plans of the City and County. As I understand it, there is no process currently planned by which the City can do anything to force the County to follow any policy within the County's area of jurisdiction, and vice versa – so there is no effective means for either entity to ensure that the other entity enforces the policies that both entities (and the residents) are counting on to make the OVOV plans actually work to accomplish the goals stated by the City and County in each of their plans. This is a significant and potentially fatal flaw of the two OVOV plans and threatens to undermine both entities accomplishing any of the goals stated in the Plans.

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8. On page 3.19-9, the first paragraph under the heading Plan to Plan Comparison should be revised to explain why the buildout population under the OVOV Plan is 275,000 when SCAG's population forecast for the City in Table 3.19-1 for buildout year 2035 is 239,923. An explanation should be included as to why the City has chosen to provide for a buildout population that is 15% higher than that predicted by SCAG, especially when there will be so many serious negative effects of population growth in the area (traffic, air pollution, greenhouse gas emissions, etc.). In addition, it is questionable whether the SCAG population forecasts are still accurate when they were made years ago and current actual population is less than SCAG's predicted population for the City at this time.

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9. Plan Implementation: The goals of the Plan will not be accomplished if past practices of Plan amendments, zoning changes and other exceptions to density and land use designations are permitted as they have been by the City in this area in the past. As mentioned above, the City should adopt much more restrictive practices for permitting any such exceptions to the Plan once adopted, and should also implement the following mitigation measures to ensure accomplishment of the Plan goals:

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9-1. Tract map extensions should not be permitted. The practice of granting extensions to tract maps has resulted in construction of projects long after approval, when the project design and other attributes often would not have been approved under current approval criteria. This delayed development practice makes it very difficult to manage growth and development effectively, and therefore should no longer be permitted. If that poses legal problems, the City should change the extension process to only grant an extension if the project meets all approval criteria applicable at the time the extension is requested.

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9-2. Density increases for a project should only be permitted if the developer obtains for the City an equivalent density decreases on another parcel or project within a half-mile radius of the project area. This would ensure that the overall density of an area would not increase beyond the Plan limits, which is critical to accomplishing the goal of the Plan to preserve low density in the outlying areas.

16

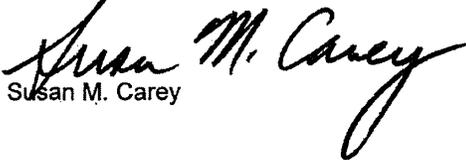
9-3. Residential projects should only be approved if job growth in the Planning Area is accomplished to achieve the reduction in vehicle trip length by 1.9 miles/trip. Since reductions in traffic, air pollution and greenhouse gas emission is predicated in the Plan on an increase in local jobs that will reduce vehicle trip lengths by 1.9 miles per trip, the required job increases should be accomplished and reduction in vehicle trip length confirmed by 3rd party study before any residential development is approved.

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9-4. No construction permitted within 500-year floodplains. This would preserve natural land for much needed groundwater recharge areas, wildlife corridors and natural open space, and prevent further channelization and disruption of the natural streambeds of the Santa Clarita River and other streams in the area. The practice of artificially filling and raising stream banks so that they are no longer designated to be in the FEMA floodplain is permitting high-density projects to be built in areas subject to flooding, and destroying some of the best land remaining in the valley for groundwater recharge, which is essential to maintaining the groundwater supply needed to support the growth planned for the area.

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Sincerely


Susan M. Carey

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE



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December 1, 2009

Mr. Mitch Glaser
Supervising Regional Planner
Department of Regional Planning
Los Angeles County
320 West Temple Street
Los Angeles, CA 90012

RE: One Valley One Vision Draft Area Plan and
Draft Environmental Impact Report

Dear Mr. Glaser:

The Attorney General provides these brief preliminary comments on the draft Environmental Impact Report (DEIR) prepared by Los Angeles County on the draft Santa Clarita Valley Area Plan (the Plan).¹ The Plan itself was developed as part of the One Valley, One Vision (OVOV) process as an amendment to the Los Angeles County General Plan. We note and appreciate that the County and the City of Santa Clarita (City) have developed and attempted to apply joint planning objectives and principles for planning in the Santa Clarita Valley.

While we believe that the County takes seriously its responsibilities to adopt a land use plan for the unincorporated portion of the Santa Clarita Valley in accordance with state law and the OVOV principles that the County and the City have developed, our review convinces us that the Plan has serious flaws. As written, the proposed Plan will not meet the mandates of the Global Warming Solutions Act of 2006 (AB 32); instead, it will result in increased greenhouse gas emissions of nearly four million metric tonnes over current levels. The Plan will also double current emissions of conventional air pollutants in the OVOV area, which is within the most polluted air basin in the country, and will result in an increase of 121% in trips driven on already very congested roads and freeways. It does not require enforceable, specific measures to contain

¹ The Attorney General submits these comments pursuant to his independent power and duty to protect the environment and natural resources of the State from pollution, impairment, or destruction, and in furtherance of the public interest. (See California Constitution, article V, section 13, Government Code sections 12511, 12600-12612, and *D'Amico v. Bd. Of Medical Examiners* (1974) 11 Cal.3d 1, 14-15.) While this letter sets forth various areas of particular concern, it is not intended, and should not be construed, as an exhaustive discussion of the DEIR's compliance with the California Environmental Quality Act.

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the urban form, prevent further sprawl, or adequately preserve natural and biological resources. It also fails as an informative document, in that it is confusing and internally contradictory in several places, and it is very difficult to determine such basic facts as the number of additional housing units expected to result from the proposed Plan.

We believe that the DEIR for the proposed Plan does not comply with the requirements of the California Environmental Quality Act (CEQA). We are providing you with a short description of our principal areas of concern regarding the DEIR now, in the hopes that it may be of help to the County in the EIR process. As we understand from our discussions that this is an iterative process, we may wish to submit additional comments at a later time in the EIR process, if circumstances warrant.

Our review to date indicates that the DEIR fails as an informational document, in that it fails to apprise the decision makers and the public of the full range and intensity of the adverse effects on the environment that may reasonably be expected if the Plan is adopted and carried out. It compares the environmental impacts of the proposed Plan to the impacts that are expected if the existing Los Angeles County Area Plan for the Santa Clarita Valley is fully built out, instead of comparing the impacts from the proposed plan to the existing, on-the-ground conditions CEQA requires. (14 Cal. Code of Regs. § 15125(a); *County of Amador v. El Dorado Water Agency* (1999) 76 Cal.App.4th 931, 955.) The failure to evaluate the impacts of the proposed Plan as measured against existing conditions, not hypothetical future conditions, results in the DEIR finding the proposed Plan would have no significant impact on climate change (despite adding almost four million metric tonnes of greenhouse gases to the atmosphere), on air quality (despite doubling existing pollutant emissions into an air basin that already is the most polluted in the nation), on transportation (despite increasing average daily trips by about 120%), and other areas. We believe that these findings are not supported by substantial evidence, and that they render the DEIR legally inadequate. We note also that an inadequate EIR can not be used as a program EIR from which EIRs for future development projects may be tiered.

We also believe that the findings of non-significance for so many impact areas renders the DEIR deficient as a substantive document, in that it fails to recommend and analyze the effectiveness of all feasible measures to mitigate adverse environmental effects as required by CEQA (Pub. Res. Code §§ 21002, 21081(a); *County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 98), particularly the impacts on climate change and air quality. Mitigation measures that are proposed tend to be voluntary and unenforceable, merely requiring that mitigation be "encouraged" or "promoted", and not required. A very few examples of such measures are Policies C 2.2.7, LU 5.2.5, C 1.2.5, LU 2.3.2, LU 5.2.5, C 1.1.1.6, and C 1.1.1.12, C 1.2.2, C 1.2.9, LU 2.1.2, LU 2.3.2, LU 3.2.2, LU 5.2.2, and LU 5.2.3. Many others could be cited.

In addition, the DEIR does not adequately analyze alternatives to the proposed Plan, as CEQA requires. (Cal. Code of Regs., tit. 14, § 15126.6(a).) The Preservation Corridor Alternative, identified by the DEIR as the environmentally superior alternative, is dismissed, but is not shown to be infeasible. The DEIR rejects it primarily on grounds that it would not meet all of the 36 joint planning principles underlying the joint OVOV planning process as well as the

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proposed project would. (DEIR, p. 6.0-44.) We note that the DEIR identifies only three of these principles as to which this alternative is "less effective" than the proposed Plan. (*Id.*) We believe that CEQA requires a fuller consideration of the environmentally superior alternative, and substantial evidence supporting its rejection, given that alternatives must be fully considered "even if these alternatives would impede to some degree the attainment of the project objectives." (Cal. Code of Regs., tit. 14, § 15126.6.)

Further, the cumulative impacts of the proposed OVOV Plan, taken together with the impacts that will result from development and growth in the remainder of the North County subregion, particularly the Antelope Valley, are barely explored at all. The DEIR states that about 59% of the projected growth for the North Los Angeles County subregion will take place in the Antelope Valley (DEIR, pp. 3.19-6, 3.3-39), but it fails to analyze what the effects of that growth may be on, e.g., air quality or greenhouse gas emissions, when considered cumulatively with the growth expected from the Santa Clarita proposed Plan. The DEIR takes the position that if an impact is not "significant", it cannot contribute to cumulative impacts. This contravenes CEQA's requirements and is at odds with one of the central rationales for cumulative impact analysis, namely that impacts that may not be significant in and of themselves may add up to significance if examined cumulatively. (*Los Angeles Unified School District v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1025.) We believe that a cumulative impacts analysis is required for climate change, air quality, transportation, and land use, at the least.

These are the major areas of concern we have with the DEIR at this stage of our review; we hope that this is of assistance to you and to the Planning Commission. As you know, we have had a preliminary discussion of the document with the Regional Planning staff, and hope to continue that dialogue. To discuss this matter further, please contact the undersigned.

Sincerely,

SUSAN L. DURBIN
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

Enc.

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NATURAL RESOURCES DEFENSE COUNCIL

November 30, 2009

Mitch Glaser
Supervising Regional Planner
County of Los Angeles
320 W. Temple Street, Room 1354
Los Angeles, CA 90012.

Re: One Valley One Vision Draft Program EIR
County of Los Angeles Area Plan

Dear Mr. Glaser:

Thank you for the opportunity to comment on the One Valley One Vision Draft Program EIR. The following comments are submitted on behalf of the Natural Resources Defense Council and its members and e-activists in Los Angeles County and neighboring counties.

I write to express concern about the failure of the DEIR to analyze air emissions and greenhouse gas emissions (GHGs) according to well-established CEQA rules concerning the proper baseline for analysis. Under CEQA Guidelines Section 15125(a), the appropriate baseline for CEQA analysis is not some hypothetical future condition, but existing physical conditions, usually at the time the Notice of Preparation is created. In *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001), 87 Cal.App.4th 99, 125, the Court of Appeal explained:

Section 15125, subdivision (a), now provides: "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist *at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced.* ... *This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.*" (Italics added.) Furthermore, section 15126.2 now provides as follows: "In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced." These amendments reflect and clarify a central

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concept of CEQA, widely accepted by the courts, that the significance of a project's impacts cannot be measured unless the

EIR first establishes the actual physical conditions on the property. (*County of Amador v. El Dorado County Water Agency, supra*, 76 Cal.App.4th at p. 953, 91 Cal.Rptr.2d 66; *Environmental Planning & Information Council v. County of El Dorado, supra*, 131 Cal.App.3d at p. 354, 182 Cal.Rptr. 317; *City of Carmel-by-the-Sea v. Board of Supervisors, supra*, 183 Cal.App.3d 229, 227 Cal.Rptr. 899.) In other words, baseline determination is the first rather than the last step in the environmental review process.

With respect to air emissions from traffic, as well as GHG emissions, what CEQA calls for is threefold: a calculation of what emissions are in the study area as of the date of the NOP, a calculation of what they will be at buildout, and sufficient mitigation measures to bring any increase in emissions below the level of significance. A "business as usual" scenario may define a "no project" alternative, but it is not, in general, appropriate to form a project baseline for air emissions or for GHG emissions.¹

With respect to air quality issues, the One Valley One Vision DEIR confuses the "no project" alternative and the CEQA baseline in a way that minimizes the need for mitigation, and thus subjects the DEIR and all projects approved under it to legal challenge. The DEIR compares two future buildout scenarios and looks at the difference between them to evaluate whether that difference meets the criteria for significance. See Table 3.3-12 and the associated text. The DEIR does this even though the data exists within it to analyze the increase over current conditions projected for the One Valley One Vision plan: this appears in Table 3.3-11 and results in findings of significance for all pollutants studied. Nonetheless, the DEIR uses the data in Table 3.3-12 to conclude that: "the net change in operational emissions associated with the OVOV Planning Area compared to the operational emissions associated with the existing Area Plan and General Plan would not exceed the SCAQMD thresholds, with the exception of VOC during the summer. Emissions during winter would not exceed the threshold for any measured pollutant."²

This is plain error and is not supported by substantial evidence because the wrong baseline has been chosen. Following directly from those errors and from the mistaken conclusion that emissions are below the level of significance, the DEIR fails to include mitigation measures for air emissions to mitigate the below the level

¹ The California Natural Resources Agency's recent proposed amendments to the CEQA Guidelines suggest no changes to the relevant portions of Guidelines Sections 15125 or 15126.2. See

http://ceres.ca.gov/ceqa/docs/Text_of_Proposed_Changes.pdf.

² DEIR page 3.3-44.

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of significance the huge increases shown in Table 3.3-11 (figures in pounds per day, wintertime data): 33,500 pounds of VOCs, 27,800 pounds of NOX, 37,110 pounds of PM10 and 11,180 pounds of PM2.5.³

Not only has use of the wrong baseline infected the DEIR's analysis of criteria pollutants, but because traffic emissions are such a large proportion of greenhouse gas emissions, it infects the GHG analysis as well. See Tables 3.4-5, 3.4-6 and 3.4-7.⁴ Indeed the DEIR refers to its analysis of GHGs as being designed to reduce "emissions from business-as-usual conditions . . ." DEIR page 3.4-113, and proposes exactly no mitigation measures. *Id.* But, as noted above, that is not what CEQA requires – it requires an analysis of significance from current conditions, not from some pro forma "business as usual" calculation. And although the DEIR claims that "Implementation of these goals, objectives, and policies would reduce potential General Plan air quality impacts under this criterion to less than significant. . . ."⁵ there is no evidence, much less the substantial evidence required under CEQA, showing that this will be so; neither is there a straightforward definition of what the threshold of significance is that the DEIR uses for GHG analysis.

Moreover, the DEIR contains no evidence to back up the assertion that keeping emissions from new development under "business as usual" will not interfere with California's emission reduction objectives. To the extent that AB32 or the AB32 Scoping Plan contain any use of a "business as usual" scenario, they speak of reducing GHG emissions 30% below "business as usual" – a standard that the One Valley One Vision DEIR does not even attempt to meet.⁶ Instead the One Valley One Vision analysis would allow over 3.9 million metric tons of new CO2 equivalent GHGs⁷ to be emitted in California every year at a time when overall GHG emissions need to be decreased.

As is the case with the air emissions analysis, use of the wrong baseline leads directly to the incorrect conclusion that no mitigation measures are necessary for the GHG impacts of the One Valley One Vision program – even though there will be huge, and demonstrable, increases in GHGs created by the project.

³ The South Coast Air Basin is in nonattainment under the Clean Air Act for ozone and PM2.5. Uncontrolled emissions of the magnitude proposed in the DEIR will set back the South Coast Air Quality Management District's efforts to bring the Basin into attainment. If attainment is not reached by the dates specified by the U.S. Environmental Protection Agency, all federal transportation money for the Basin, including for projects in the One Valley One Vision study area, may be lost.

⁴ DEIR pages 3.4-35 to 3.4-37.

⁵ DEIR page 3.4-113.

⁶ Notably, CAPCOA found that reductions of 28% to 33% from business as usual would have a "low" GHG emissions reduction effectiveness. CAPCOA, CEQA And Climate Change (2008) at p. 56.

⁷ Table 3.4-7.

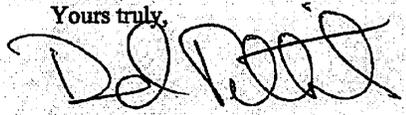
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These errors need to be corrected to make the DEIR valid under CEQA, AB 32 and Executive Order S-03-05. On behalf of NRDC, I look forward to a revised and recirculated DEIR that fixes the errors noted in this letter.

Thank you for your consideration of these comments.

Yours truly,



David Pettit
Senior Attorney
Natural Resources Defense Council

Letter No. D42 Letter from Susan Carey, February 21, 2011

Introduction to Responses

This comment presents several statements presenting the opinion that the City's OVOV Draft Program EIR (Draft EIR or Draft OVOV EIR) is inadequate. In support of this opinion, the commenter has attached, and made many references to, two letters. The first letter is from the State of California Department of Justice of the (DOJ), dated December 1, 2009, and the second letter is from the Natural Resources Defense Council (NRDC), dated November 30, 2009.

Prior to reading the following responses to the points raised in this comment letter, it is important to understand that both the DOJ letter and NRDC letter were not written in response to the City's Draft EIR. Rather, the letters were written in response to an entirely different EIR, that being a draft EIR prepared by Los Angeles County (County) in 2009 analyzing its OVOV Plan. It is important to also understand that not only are the DOJ and NRDC letters written in response to outdated (County) EIR and not the City's Draft OVOV EIR, the two letters were written in response to a EIR that has since been replaced/recirculated by the County. Therefore, because the DOJ and NRDC letters were not written in response to this City Draft EIR, and because the County will not respond to those letters are part of its environmental review, no responses to those letters are required and no responses are required to any references made to those letters presented by this commenter in this comment letter.

Notwithstanding that no responses are required to the DOJ and NRDC letters, nor are responses required to any of the comments making reference to the DOJ and NRDC letters, good faith responses are provided below for information purposes only.

Response 1

This comment inappropriately relies on information presented in the DOJ and NRDC letters which are no longer valid under CEQA. See "Introduction to Responses" above. Notwithstanding that no responses are required to any of the following comments making reference to the DOJ and NRDC letters, good faith responses are provided for information purposes.

Under 1-1. Inappropriate Comparisons.

This comment states that "there is excessive and inappropriate comparison in the City's DEIR of conditions at buildout under the current General Plan vs. the proposed OVOV Plan, rather than comparing current conditions as the baseline vs. conditions at buildout under the OVOV Plan." For the purposes of this response, the phrase "plan to plan" will be used to describe the analysis of the current General Plan vs. the proposed OVOV Plan. The phrase "ground to plan" will be used to describe the analysis of current baseline conditions vs. conditions at buildout under the OVOV Plan.

Again, this comment is in reference to the County Draft EIR which has been replaced and not the City's Draft EIR. This comment suggests that the only analysis performed as part of the City Draft EIR is the plan to plan analysis. Such a suggestion is incorrect. In fact the majority of the impact analysis presented in the City Draft EIR is of the ground to plan condition, and not the plan to plan condition. Examples of this can be found throughout the analyses presented in Draft EIR Section 3.0, Environmental Impact Analysis. As described on page 3.0-1,

*This section provides more detailed information on existing conditions relative to each environmental topic addressed in this section, programmatic-level impact analyses and conclusions, and mitigation measures. Existing conditions discussions define the environmental conditions that currently exist on and near the project site, while **impacts are defined as the potential effects of implementing the existing General Plan on the existing environment.** Wherever a project impact is identified as being significant, mitigation measures are recommended that would reduce the level of impact. Technical topics addressed in this EIR section were defined by the City of Santa Clarita during the scoping process and from comments received on the Notice of Preparation (see **Appendix 1.0** for copies of these documents and the comments received). The purpose of this section is to **inform readers of the type and magnitude of the environmental impact and how such impacts would affect the existing environment.** [Emphasis Added]*

Each impact analysis section of the Draft EIR (i.e., Section 3.1 through 3.19) analyzes the ground to plan condition. Specific examples of where the Draft EIR presents an analysis of the ground to plan condition include, but are not limited to, Section 3.3, Air Quality, pages 3.3-46 to 3.3-50, Section 3.2, Transportation and Circulation, pages 3.2-32 to 3.2-58 and Section 3.13, Water Service, pages 3.13-113 to 3.13-116.

The comment is correct in stating that the Draft EIR includes comparisons between the existing General Plan and the proposed OVOV Plan (i.e., the plan to plan comparison). As indicated in Section 3.0,

Each section also includes a "Plan to Plan" analysis comparing the existing General Plan to the Proposed OVOV Plan. While not required by CEQA, it provides the public with a brief comparison of the two Plans, which has been a concern voiced by the public throughout the preparation of the General Plan and the EIR.

The comment claims that this comparison is misleading and results in "incorrect" conclusions within the Draft EIR. However, the comment does not include and specific references to the City's Draft EIR where "incorrect" conclusions are made. Consequently, no specific response to this comment is possible or required. While such a comparison is not required by CEQA, it also is not precluded by CEQA. According to CEQA, environmental impact reports are intended to be informational documents. In this case, the City believes this comparison, and the information it provides, is important due to the public's interest in this topic.

Regarding the Draft EIR traffic analysis, the comment states that where the plan to plan comparison is made “the City draws the conclusion that there is no significant impact regarding a particular aspect of the OVOV Plan...” Again, no specific reference to the Draft EIR is provided in this comment indicating where incorrect conclusions are presented. Consequently, no specific response to this comment is possible or required. Further, this comment seems to suggest that the only conclusions of impact significance are presented in the plan to plan comparison. If this is what the commenter is stating, it is incorrect. The Draft EIR specifically includes a traffic impact analysis of the ground to plan condition. For example, Section 3.2, page 3.2-32, Roadway Segments, states,

Roadway Segments

A comparison of traffic forecasts based on the proposed OVOV plan (the proposed land uses along with the proposed highway network) to existing conditions is provided in Table 3.2-8. The table presents roadway segment V/C ratios and LOS values for each of the two scenarios. A comparable table for peak hour intersection conditions is provided in Table 3.2-8.

Table 3.2-8 demonstrates that with the proposed Highway Plan in place, each of the four of the five roadway segments that exceed are at LOS F for existing conditions are forecast to operate at LOS E or better with the proposed OVOV plan. The fifth segment that is at LOS F for existing conditions, McBean Parkway south of Avenue Scott, is shown to remain at LOS F with the OVOV plan. However, the V/C ratio at that location does not increase with the OVOV plan.” [Emphasis Added]

As shown in a review of the City’s Draft EIR, and as summarized above, the Draft EIR includes a ground to plan analysis of the Plan’s environmental impact as requested in this comment. In light of the public’s interest in the plan to plan comparison, and the EIRs role as an informational document, the plan to plan comparison will remain in the EIR.

Response 2

This comment inappropriately relies on information presented in the DOJ and NRDC letters which are no longer valid under CEQA. See “Introduction to Responses” above. Notwithstanding that no responses are required to any of the following comments making reference to the DOJ and NRDC letters, good faith responses are provided for information purposes. \

Under 1-2. Findings of Non-significance.

Relying on the DOJ’s letter to Los Angeles County, not the City of Santa Clarita, the comment states that the Draft EIR is deficient as a substantive document because it fails to recommend and analyze the effectiveness of all feasible measures to mitigate adverse environmental impacts. While not completely clear, this comment appears to suggest that because of the plan to plan comparison presented, the Draft EIR does not analyze all feasible mitigation measures to impacts created by the Plan. As described in

Response 1 above, such a comment incorrectly presumes that the only impact analysis presented is in the plan to plan condition. This comment completely and inappropriately ignores the extensive ground to plan analysis presented in the Draft EIR, as noted in Response 1. As provided in the Draft EIR, the Draft EIR correctly presents mitigation measures to reduce the magnitude of the significant impacts of the OVOV Plan buildout. In addition, the comment does not provide any specific references to where the Draft EIR has not analyzed the effectiveness of all feasible measures to mitigate impacts. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 3

This comment inappropriately relies on information presented in the DOJ and NRDC letters which are no longer valid under CEQA. See “**Introduction to Responses**” above. Notwithstanding that no responses are required to any of the following comments making reference to the DOJ and NRDC letters, good faith responses are provided for information purposes. This comment provides the opinion that mitigation measures in the Draft EIR “tend to be voluntary and unenforceable.” However, the comment provides no specific reference to the Draft EIR supporting this opinion. Consequently, no specific response to this comment is possible or required.

The City believes that many of its policies (which are also presented as mitigation measures in the Draft EIR) have definitive and strong language. For example:

- Objective LU 1.1:** Maintain an urban form for the Santa Clarita Valley that preserves an open space greenbelt around the developed portions of the Valley, protects significant resources from development, and directs growth to urbanized areas served with infrastructure;

- Policy LU 1.1.5:** Promote infill development and re-use of underutilized sites within and adjacent to developed urban areas to achieve maximum benefit from existing infrastructure and minimize loss of open space, through redesignation of vacant sites for higher density or mixed uses, where appropriate;

- Policy LU 5.2.1:** Designate higher-density residential uses in areas served by public transit and a full range of support services; and

- Policy C 3.3.4:** Within transit-oriented development projects, consider providing incentives such as higher floor area ratio and/or lower parking requirements for commercial development that provides transit and ride-share programs.”

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 4

As evidence that this commenter is inappropriately relying on comments prepared on a different EIR, this comment states that the Draft EIR finds a “Preservation Corridor Alternative” as the environmentally superior alternative. However, such an alternative does not exist in the Draft EIR. In fact, the Draft EIR finds the “Downgrade Vacant Urban Residential Parcels by One Land Use Category Alternative” as environmentally superior to the proposed Plan. No further response to this comment is required.

Response 5

This comment inappropriately relies on information presented in the DOJ and NRDC letters which are no longer valid under CEQA. See “**Introduction to Responses**” above. Notwithstanding that no responses are required to any of the following comments making reference to the DOJ and NRDC letters, good faith responses are provided for information purposes.

This comment states that the County’s 2009 Draft EIR did not analyze cumulative impacts of the Plan taking into consideration other growth in other areas such as the North Los Angeles County Subregion (i.e., the Antelope Valley). With respect to the City Draft EIR, this comment is incorrect. As presented in Draft EIR Section 4.0, Cumulative Impacts, the cumulative impact analysis specifically includes the effects of regional growth *outside* the OVOV planning area. As stated in Section 4.0, page 4.0-16,

*Growth in neighboring counties and cities would likely cause secondary effects in the OVOV Planning Area, such as increased regional population, traffic, housing, and pollution; therefore, **this section will present the anticipated population growth of surrounding counties located within the Southern California Association of Governments (SCAG) planning region.***

*The cumulative impact analysis is based on the anticipated population growth within the OVOV Planning Area **and surrounding SCAG region.** Population growth is a major factor contributing to direct impacts on habitat, housing, job markets, transportation, and development. Additionally, these direct impacts can cause secondary impacts on biological resources, air quality, density, and the overall quality of life within the OVOV Planning Area. For this reason, using populating growth as a measure to determine cumulative impacts is highly applicable when examining a large project area such as a county.” [Emphasis Added]*

As an example of how regional growth is analyzed in the cumulative traffic analysis, Section 4.0 states, page 4.0-18,

Cumulative Transportation and Circulation Impacts

***Projected increases to regional traffic** are also incorporated into the traffic forecasts produced by the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). In modeling terms, these regional trips are referred to as external trips since one or both tripends are external to the Santa Clarita Valley. There are two components to the external traffic forecasts, the first being trips*

generated within the Santa Clarita Valley (i.e., one trip end within the Santa Clarita Valley and the other trip end outside of the Santa Clarita Valley), and the second being external trips that pass through the Santa Clarita Valley (i.e., both trip ends outside of the Santa Clarita Valley).

In other words, the OVOV traffic study includes forecasts of regional traffic that passes through the Santa Clarita Valley, and which are projected to more than double by 2030.”
[Emphasis Added]

Based on this information, the City’s Draft EIR includes a cumulative impact analysis of appropriate breadth.

Response 6

The comment states that the discussion of the potential for CO Hotspots in Section 3.3, Air Quality should be revised to correctly reflect the information in Section 3.2, Transportation and Circulation which shows that several intersections would degrade from Level of Service (LOS) D or better to LOS E as a result of buildout of the OVOV General Plan and Area Plan when compared with existing conditions. The discussion has been updated in Section 3.3 to correctly reflect that the LOS of several intersections would degrade from LOS D or better to LOS E under OVOV buildout conditions when compared with existing conditions, which would result in a potentially significant impact.

Modeling was conducted to determine whether buildout under the proposed OVOV General Plan and Area Plan would actually exceed the significance thresholds and result in a significant impact. The LOS information was obtained from Table 4-9 of the project traffic report (Appendix 3.2 of the Draft EIR), which indicated that seven intersections would degrade from LOS D or better to LOS E or worse when compared to existing conditions. The maximum CO concentrations at these intersections were calculated using the CALINE4 screening model. The screening model is intended as a screening analysis that conservatively assesses the potential for CO hotspots based on worst-case meteorological and emissions assumptions. If a hotspot is identified, the complete CALINE4 model is then utilized to determine precisely the CO concentrations predicted at the intersections in question. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. Modeling was conducted for peak hour morning and evening traffic volumes using the cumulative plus project traffic volumes at the assumed buildout year of 2035. Background CO concentrations were included in the analysis.

The results of the CO hotspots modeling analysis are presented in **Table 1, Maximum Carbon Monoxide Concentrations at OVOV Buildout** for receptors located 0 feet from the intersection (adjacent to the intersection). As shown, the CALINE4 screening procedure predicts that, under worst-case conditions

(i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second and extreme atmospheric stability), future CO concentrations at each intersection would not exceed the federal or state 1-hour and 8-hour standards. As a result, no significant impacts would occur relative to future carbon monoxide concentrations as a result of buildout under the proposed OVOV General Plan and Area Plan.

Table 1
Maximum Carbon Monoxide Concentrations at OVOV Buildout

Intersection	0 Feet	
	1-Hour ¹	8-Hour ²
1. The Old Road & Rye Canyon	2.7	1.9
3. The Old Road & Valencia	3.0	2.1
5. The Old Road & Pico Canyon	2.8	2.0
8. McBean & Magic Mountain	3.0	2.1
10. Orchard Village & McBean	3.2	2.3
11. Orchard Village & Wiley Canyon	2.9	2.0
17. Sierra Highway & Newhall	2.9	2.0
Exceeds state 1-hour standard of 20 ppm?	NO	—
Exceeds federal 1-hour standard of 35 ppm?	NO	—
Exceeds state 8-hour standard of 9.0 ppm?	—	NO
Exceeds federal 8-hour standard of 9 ppm?	—	NO

Source: Impact Sciences, Inc.

¹ State standard is 20 parts per million. Federal standard is 35 parts per million.

² State standard is 9.0 parts per million. Federal standard is 9 parts per million.

Response 7

This comment opines that the expectations of the reduction in vehicle trips due to people walking and biking instead of driving are probably overstated because an “increase in air pollution is going to increase the number of days designated as ‘poor air quality,’” which will decrease the use of walking and biking as transportation modes. The comment also states that the Draft EIR does not analyze the impact of “extreme temperatures” in the planning area and how that may reduce walking and biking compared with other communities with more moderate climates.

Regarding the comment stating that a potential decrease in walking and biking as alternate modes of transportation will occur because of an increase in the number of days of poor air quality and because of hot weather, no specific information in support of the opinions is presented in this comment (e.g., that the number of days designated with ‘poor air quality’ will occur). Consequently, no specific response is provided or required. Notwithstanding this, the following is provided for information purposes.

Draft EIR Section 3.3, Air Quality, presents an extensive analysis of the proposed Plan's impact on local and regional air resources. The air quality analysis was completed following the guidelines established by the South Coast Air Quality Management District (SCAQMD) through its Air Quality Management Plan (AQMP). As stated on Draft EIR Section 3.3, Air Quality, beginning on page 3.3-26, the SCAQMD is responsible for bringing air quality in the areas under its jurisdiction into conformity with federal and state air quality standards. The SCAQMD primarily regulates emissions from stationary sources, such as manufacturing and power generation. Mobile sources, such as buses, automotive vehicles, trains, and airplanes, are largely out of the SCAQMD's jurisdiction and are up to the California Air Resources Board (CARB) and the US Environmental Protection Agency (EPA) to regulate. In order to achieve air quality standards, the SCAQMD adopts an Air Quality Management Plan (AQMP) that serves as a guideline to bring pollutant concentrations into attainment with federal and state standards. The SCAQMD determines if certain rules and control measures are appropriate for their specific region according to technical feasibility, cost effectiveness, and the severity of nonattainment. Once the SCAQMD has adopted the proper rules, control measures, and permit programs, it is responsible to implement and enforce compliance with those rules, control measures, and programs.

As for the increase in the number of days of poor air quality or hot temperatures decreasing the amount of walking and biking in the Planning Area, no information has been presented by the commenter in support of the opinions provided, and none is known to exist within the body of information available from the SCAQMD regarding the correlation between the degradation of air quality or hot temperatures and a decrease in walking or biking. The AQMP and air quality impact analysis guidance provided by SCAQMD for use in the preparation of EIRs provides the best available information. Therefore, any statement regarding such as correlation in the EIR would be speculative. Furthermore, summer temperatures in the Santa Clarita Valley are not substantially different than the temperatures of other South Coast Air Basin areas (e.g., inland Los Angeles County, Riverside County, etc.). For additional information regarding regional and local climate, please see Draft EIR Section 3.3, Air Quality, subsection entitled "Climate" beginning on page 3.3-1.

In addition, the air quality and traffic modeling used in the Draft EIR (the basis for the air quality analysis) has been approved for use by SCAQMD and CARB (air quality), and the City of Santa Clarita (traffic), all three considered to be experts in this field of study. Therefore, in the absence of any information contrary to that presented in the Draft EIR, the analysis presented is considered to be a reasonable and good faith effort in determining the Plan's impact on air quality. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Regarding the comment that the Draft EIR overstates the anticipated reduction in vehicle trips, and thus vehicle miles travelled (VMT), no specific information is provided in this comment in support of the opinion. The information used in preparation of the Draft EIR is based on industry-standard traffic modeling. The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) was used to derive traffic forecasts in the Draft EIR, including vehicle trip length and VMT.³ This traffic model produces peak hour and ADT forecasts for the OVOV area roadway system. Buildout land use data from the proposed City General Plan and County Area Plan Land Use Elements was used as the basis for the traffic forecasts. (Draft EIR Page 3.2-32)

The number of trips generated by a certain type of land use is estimated by applying a representative trip generation rate to the quantity of land use in the area under consideration. The SCVCTM uses a predefined set of trip generation rates calibrated specifically to local conditions to calculate both peak hour and ADT trips by land use.

The traffic forecasting process utilized by the SCVCTM also calculates vehicle miles travelled (VMT) based on the geographical placement of land uses within an area and the number of trips they generate. **Table 3.2-12, Trip Length and VMT Comparison – Existing City General Plan and County Area Plan Buildout vs. OVOV Buildout**, provides a comparison between total ADT, VMT and trip length under buildout of the existing and proposed City General Plan and County Area Plan. The table shows that the total number of vehicle trips under buildout of the proposed City General Plan and County Area Plan is approximately 1 percent lower than those under buildout of the current City General Plan and County Area Plan. The table also shows that total VMT is reduced by approximately 15 percent and the average trip length is reduced by approximately 1.9 miles.

The 1.9 miles reduction traveled is a result of the location of land uses and access to alternative modes of transportation. Furthermore, by locating higher density in transit hub areas and along transit corridors, fewer vehicle trips are made. The Mixed Use concept encourages more walkability to services and commercial opportunities. The Mixed Use placement along transit corridors also encourages the use of both Metrolink and bus service. The OVOV General Plan proposes a dispersion of employment opportunities and hubs throughout the community, resulting in less Vehicle Miles Traveled (VMT) and shorter trips to and from employment centers and a corresponding reduction in Greenhouse Gas (GHG) emissions.

³ The SCVCTM, originally developed in 1994, was substantially updated in 2004 with subsequent refinements. See Appendix 3.2 for a more detailed discussion of the updates to this model and the version used in this traffic analysis.

Without the designation of the suitable sites and the provision of the Mixed Use designation in core commercial areas, transit corridors and hubs resulting in dispersed employment centers in the Valley, the following is likely to occur:

- The length of vehicle trips would be longer;
- The number of vehicle trips would increase
- Air quality would worsen;
- Impacts to sensitive habitats would be greater;
- GHG emissions would increase; and
- The City would not meet its RHNA goals nor the objectives of SB 375.

Given that the comment does not include any technical information contrary to that provided in the Draft EIR, and that the Draft EIR was prepared by qualified transportation engineers under the supervision of the City traffic engineering staff, no further response to this comment is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 8

This comment requests clarification of the statement in the Draft EIR that reads, "Achieving a jobs/housing balance can significantly reduce the total number of vehicle trips..." (Draft EIR page 3.19-3)

No information contrary to that presented in the Draft EIR is presented in this comment. Therefore, the information presented in the Draft EIR is considered by the City to be appropriate for the analysis completed. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project. While no specific response is required, the following is provided for information purposes.

The City believes that a 1.5/1 jobs/housing balance at OVOV General Plan buildout can be achieved based upon the TAZ analysis prepared for the project, US Department of Energy figures for jobs/square foot and SCAG RTP projections. The City will pursue commercial and industrial ranges that will result in jobs for all demographic levels.

Response 9

The comment questions the need and requirement to plan for and allow for the housing growth estimated by the RHNA. The commenter states that other cities may have avoided this requirement. Draft EIR, Section 3.19 Population and Housing, page 6 states:

State law (Government Code 65915) requires cities to grant incentives to promote affordable housing development, provided that a minimum number of affordable units are constructed and remain affordable for specified periods of time. In addition, state law requires that cities provide density bonuses for affordable housing production, up to a maximum of 35 percent over the units allowed by the General Plan Land Use Map. In exchange for the additional units, the housing developer would ensure that a certain percentage of the units will be priced at affordable levels and will remain affordable over the time period required by the law. The City of Santa Clarita complies with state requirements to provide incentives and density bonuses to promote affordable housing construction by incorporating these provisions into the Unified Development Code. In addition, the City has adopted other incentives including fee waivers and expedited review to promote development that meets General Plan goals and objectives.

Furthermore, page 3.19-5 states provides the legal requirement for provision of and accommodation for RHNA numbers: “The California Housing and Community Development together with the regional Councils of Governments (COGs) throughout the state periodically make projections of anticipated growth in employment and population within each COG’s member counties. Based on these projections, the COGs calculate a fair share of the need for new housing in each jurisdiction within their member counties. This process is known as the Regional Housing Needs Assessment (RHNA). Each city or county in a COG planning region must ensure that its housing element is consistent with the RHNA prepared by that COG, and must identify sufficient, appropriately zoned land in the General Plan Land Use Element to accommodate the housing growth estimated by the RHNA.”

Response 10

The comment requested clarification to add “for 2014” to text and the title of Table 3.19-2. The requested correction to Section 3.19, Population and Housing, page 3.19-6 of the Draft EIR has been made. Please see the portion of the OVOV Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 11

A general plan is a policy document by design and not a set of enforceable codes. Subsequent to the adoption of OVOV, the City will write its Unified Development Code to implement the goals and policies of the OVOV General Plan and it will contain enforceable ordinances to apply to proposed projects and the built environment. There are existing state laws that govern a city’s obligation to take actions consistent with its adopted general plan. Further, OVOV contains a Mitigation Monitoring and Reporting Program to help ensure that the general plan is followed appropriately.

Any person who believes a public agency is making decisions in conflict with its adopted general plan, can bring it to the attention of said agency for the agency to take action as appropriate. Finally, the commenter expresses opinions on other project EIRs where the City took action under its existing General Plan and not the proposed OVOV. No further response is required.

Please also see Responses to **Letter No. D45, SCOPE, Comments 14** and **15** for additional responses to this issue.

Response 12

The comment states How will the City and County together adhere to the shared polices protecting open space and preventing urban sprawl? A general plan is a policy document by design and not a set of enforceable codes. Subsequent to the adoption of OVOV, the City will write its Unified Development Code to implement the goals and policies of the OVOV General Plan and it will contain enforceable ordinances to apply to proposed projects and the built environment. The County has also stated that it will update portions of the Zoning code to implement the appropriate goals and policies identified in the County OVOV General Plan. There are existing state laws that govern a city's obligation to take actions consistent with its adopted general plan. Further, OVOV contains a Mitigation Monitoring and Reporting Program to help ensure that the general plan is followed appropriately. Any person who believes a public agency is making decisions in conflict with its adopted general plan, can bring it to the attention of said agency for the agency to take action as appropriate.

Response 13

that the City should explain why the OVOV buildout population forecast for the City's Planning Area of 275,000 people is greater than the SCAG year 2035 population forecast of 239,923 people. Such an explanation is provided in the Draft EIR. As indicated in Section 3.19, Population and Housing,

Buildout of the proposed General Plan Land Use Policy Map would result in a total population of 275,000 residents within the City's Planning Area. The increase in population would result from the annexation of existing units currently located in the City's SOI as well as the construction of new units. This housing projection assumes buildout of the maximum number of dwelling units per acre for each residential land use category designated on the proposed Land Use Policy Map. SCAG projects that the population of the City will increase to 239,923 by year 2035 (no population projections from SCAG are presently available for the City after year 2035). This projection does not account for the future annexation of the SOI, which is assumed under General Plan buildout. Therefore, the projected population of the City's Planning Area would be greater than 239,923 in year 2035. The projected General Plan buildout population (275,000) is consistent with SCAG's year 2035 population forecast for the City (239,923); the difference of 35,077 residents is attributed to the population of the annexed SOI and to growth that would occur in the City's Planning Area after 2035. (see pages 3.19-7 and 3.19-8)

Regarding the comment suggesting that the SCAG population forecasts are no longer accurate, SCAG is the regional metropolitan planning organization responsible for providing population forecasts for the region, including the City of Santa Clarita. As indicated in the Draft EIR,

SCAG is a federally designated metropolitan planning organization for the Southern California region. The City of Santa Clarita is located within the six-county jurisdiction of SCAG, which includes Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura counties. One of SCAG's primary functions is to forecast population, housing, and employment growth for each region, subregion, and city. The latest forecast was completed as part of the 2008 Regional Transportation Plan (RTP) update, which was adopted in May 2008. The project site is located in the North Los Angeles subregion, which also encompasses the cities of Santa Clarita, Lancaster, and Palmdale as well as the unincorporated Los Angeles County area of the Santa Clarita Valley. (page 3.19-4)

As the planning agency responsible for providing population forecasts, use of the forecast for the City of Santa Clarita provided by SCAG is considered appropriate for planning purposes.

Response 14

Please see **Response 11** and **12** with regard to enforcement of goals and policies..

Response 15

Please see the response to **Letter No. D37. Michael Naoum, Comment 25** for a response to this comment.

Response 16

Please see response to **Letter No. 29, SCOPE, Comment 5** and response to **Letter No. D37, Michael Naoum, Comment 22** for responses to this comment.

Response 17

Please see the response to **Letter No. D37. Michael Naoum, Comment 23** for a response to this comment. As the planning agency responsible for OVOV Plan implementation, the City of Santa Clarita is the appropriate agency to guide development in the City's OVOV Planning Area. Consequently, no third party is required. The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Response 18

This comment suggests that no construction be permitted within the 500-year floodplains to preserve open space, prevent channelization of natural drainages, and to provide land needed for groundwater recharge. However, no environment information is provided in this comment supporting the opinion that no construction should be allowed within the 500-year floodplain. Consequently, no specific response is required. Nonetheless, the following is presented for information purposes.

The proposed Plan addresses the need for habitat and floodplain protection. The following goals, objectives, and policies related to flood protection and ecosystem preservation are presented Draft EIR Section 2.0, Project Description, beginning on page 2.0-90,

“Responsible Management of Environmental Systems

Goal CO.1: A balance between the social and economic needs of Santa Clarita Valley residents and protection of the natural environment, so that these needs can be met in the present and in the future.

Objective CO 1.6: To the extent feasible, minimize long-term effects of development on natural systems and adjust development strategies as needed to promote sustainability.

Biological Resources

Goal CO 3: Conservation of biological resources and ecosystems, including sensitive habitats and species.

Objective CO 3.1: In review of development plans and projects, encourage conservation of existing natural areas and restoration of damaged natural vegetation to provide for habitat and biodiversity.

Policy CO 3.1.2: Avoid designating or approving new development that will adversely impact wetlands, floodplains, threatened or endangered species and habitat, and water bodies supporting fish or recreational uses, and establish an adequate buffer area as deemed appropriate through site specific review.

Flood Hazards

Goal S 2: Protection of public safety and property from unreasonable risks due to flooding.

Objective S 2.1: Plan for flood protection as part of a multi-objective watershed management approach for the Santa Clara River and its tributaries.

Policy S 2.1.1: On the Land Use Map, designate appropriate areas within the floodplain as open space for multi-use purposes, including flood control, habitat preservation, and recreational open space. Development in the floodplain will require necessary mitigation as deemed necessary by the reviewing authority.

Policy S 2.1.5: Promote the joint use of flood control facilities with other beneficial uses where feasible, such as by incorporating detention basins into parks and extending trails through floodplains.

In order to balance ecological goals and the need for adequate protection of property and infrastructure from flooding, the proposed Plan also includes the following goals, objectives, and policies:

- Policy S 2.1.3:** Promote the use of vegetated drainage courses and soft-bottom channels for flood control facilities to the extent feasible, in order to achieve water quality and habitat objectives in addition to flood control.
- Policy S 2.1.4:** Cooperate with other agencies as appropriate regarding the related issues of flood control, watershed management, water quality, and habitat protection.
- Policy S 2.1.5:** Promote the joint use of flood control facilities with other beneficial uses where feasible, such as by incorporating detention basins into parks and extending trails through floodplains.
- Objective S 2.2:** Identify areas in the Santa Clarita Valley that are subject to inundation from flooding.
- Policy S 2.2.1:** Prepare and maintain maps of floodways and floodplains based on information from the Federal Emergency Management Agency (FEMA) and other appropriate sources, in order to qualify for FEMA's National Flood Insurance Program.
- Policy S 2.2.2:** Identify areas subject to localized short-term flooding due to drainage deficiencies.
- Objective S 2.3:** Plan for and construct adequate drainage and flood control infrastructure to ensure flood protection.
- Policy S 2.3.1:** Implement drainage master plans designed to handle storm flows from the 100-year storm.
- Policy S 2.3.2:** Include funding for drainage and flood control improvements in the annual City budget.
- Objective S 2.4:** Implement flood safety measures in new development
- Policy S 2.4.1:** Require that new development comply with FEMA floodplain management requirements.
- Policy S 2.4.2:** On the Land Use Map, restrict the type and intensity of land use in flood-prone areas, or require flood-proof construction, as deemed appropriate.
- Objective S 2.5:** Limit risks to existing developed areas from flooding.

Policy S 2.5.1: Address drainage problems that cause flooding on prominent transportation corridors by working with multi-jurisdictional agencies and stakeholders to construct needed drainage improvements.

Policy S 2.5.2: Provide for the maintenance of drainage structures and flood control facilities to avoid system malfunctions and overflows.

Based on the goals, objectives and policies already included in the proposed Plan, the City believes the Plan addresses the need for habitat and floodplain protection.

For a response to the comment suggesting that the preservation of land is needed for additional groundwater recharge, please see **Response to Letter No. D45, SCOPE, Comment 26**.

The City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

RECEIVED

FEB 22 2011

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

PO Box 801084
Santa Clarita, CA 91380-1084

February 22, 2011

Mr. Jason Smisko
Senior Planner
City of Santa Clarita
23920 Valencia Blvd, Ste 302
Valencia CA 91355

Dear Jason:

Please include the following comments and questions in the One Valley One Vision General Plan Environmental Impact Report for responses. As we discuss, I also request that my questions and comments as submitted on November 12, 2010 and during each of the Planning Commission's study sessions on the proposed General Plan elements be included in the final report.

1

I wish to note that I am in agreement with the statements made by Mr. Michael Naoum in his letter to you dated February 18, 2011. I share his concerns, as do many others, about the misleading comparison of the OVOV Plan to the existing General Plan rather than to current conditions which reflect the myriad alterations to the existing General Plan over the last 20 years.

2

Additional comments on the OVOV DEIR:

Land Use

Policy LU 2.1.3: "Provide a range of land use types and densities to reflect the special characteristics, lifestyles, and opportunities that differentiate various communities and villages in the Santa Clarita Valley, including urban, suburban, and rural living environments."

High-density development of the Casden and the Smiser properties will be inconsistent with the surrounding neighborhoods and, in the case of the Casden property, a violation of the Special Standards District in which this location.

3

Policy LU 2.1.5: "Identify areas with hazardous conditions and ensure that uses in or adjacent to these areas pose minimal risk to public health or safety."

Establishing a specific plan in the North Newhall area that allows for significant development on the Casden property will require alteration of this floodplain that may pose a threat to the health and safety of Placerita Canyon residents. Please explain how downstream areas extending down to SR-14 will be protected.

Policy LU 2.3.1: Mixed-use development at the higher density levels should require an affordable component in addition to a "robust mix" of non-residential uses. The City

cannot meet its goal of a 2:1 jobs/housing balance without incorporating a significantly higher number of residential units to meet the needs of service, retail, and public service employees who will be needed as the city grows. Housing for a variety of economic levels can only be obtained through higher-density residential and mixed-use development. If developers can obtain density bonuses just through adding non-residential uses, there is no incentive to include housing for a mix of economic levels. How will the Inclusionary Housing Program affect mixed-use developments?

3

Policy LU 6.3.2: Not only should medians and parkways on major arterials be beautified, they should include pedestrian islands for children, senior citizens and the infirm and disabled who cannot travel 10-lane roadways without extended crossing allowances, which creates longer traffic delays, greater noise impacts, and more air pollution.

Consistency with SCAG Regional Transportation Goals and Policies

SCAG Goal #1: Maximize mobility and accessibility for all people and goods in the region:

Goal LU 5: This goal is not met by the proposed General Plan because:

- 1) The city will lose its limited bikeway connectivity as it eliminates five bike paths. Bike riders will not be encouraged to use that mode of transportation when they have to navigate the roads alongside thousands of vehicles traveling at speeds of 45-55 mph.
- 2) The city has not identified how it will establish bus turnouts throughout the community which would necessitate eminent domain proceedings in many areas.

4

Goal C.2: This goal cannot be met by merely "promoting" expansion of alternative transportation options. There is no mention of actively pursuing mass transit connections to areas outside of the Santa Clarita Valley which would have to be included for regional efforts to succeed.

SCAG Goal #2: Ensure travel safety and reliability for all people and goods in the region.

Policy C.1.1.7: This goal is not met because cyclist safety is not considered in the elimination of bike paths and the suggestion that cyclists — either recreational or experienced — will be safe riding on arterials alongside vehicles traveling 45-50 mph without benefit of dedicated bike lanes or raised paths. The proposed General Plan eliminates five bike paths and does not otherwise enhance safety by creating new enhanced bike paths.

5

SCAG Goal 3: Preserve and ensure a sustainable regional transportation system.

Goal C1: Goal C1 is not met because Policy C.1.1.3 only "promote(s)" an integrated, seamless transportation system. It does not set minimum requirements, standards, or timelines to be met to ensure success. Policy C.1.1.12 states that recommendations will be implemented to expand opportunities for alternative travel modes. The proposed General Plan actual removes some of those opportunities even as it suggest that they'll be implemented.

6

SCAG Goal #4: Maximize the productivity of our transportation system.
Policy C.1.1.8 and Policy C.1.1.9: The City cannot guarantee a “unified and well-maintained network of streets and highways” or acquisition of rights-of-way for alternative transportation merely through identifying funding opportunities in the CIP or through “all available” sources. The City has never been able to fully fund all necessary roadwork to keep pace with development. The rights-of-way acquisitions needed for public transportation are not quantified, nor has funding been identified for eminent domain necessary to the task. Importantly, the City has not created a financial plan or timeline to prepare for the construction or modification on the more than 90 road projects identified in the Circulation element. The projects constitute a wishlist that may take billions of dollars to complete. (These comments also apply to C.2.1.3 that follows.)

7

Policy C. 2.2.4 This policy only “strives to maintain a Level of Service D or better, but acknowledges that that effort will only be pursued to the “extent practical” suggesting that LOS E and F may be more the standard than the exception under the growth projections deemed acceptable under this worst-case-scenario OVOV.

Policy LU 5.2.1 and Policy LU 5.2.4: Designating higher-density residential for areas served by TOD and other public transit is often in conflict with goals stated throughout OVOV to protect and preserve existing, established residential areas from severe impacts.

SCAG Goal #5: Protect the environment, improve air quality, and promote energy efficiency.

Policy LU 1.1.4: OVOV will not preserve community character “by maintaining natural features that act as natural boundaries between developed areas, including... rivers and drainage courses, riparian areas...” because it is promoting high-density, TOD in floodplains such as the Casden property and the Smiser property that are adjacent to the rural, equestrian neighborhood of Placerita Canyon and a quiet Newhall residential neighborhood, respectively. Policy LU. 1.1.6 speaks of preserving the “rural lifestyle in canyons and low-density” but adds the stipulation that these would be in “outlying areas of the Santa Clarita Valley. So it would appear that preservation of community character is relegated to outlying areas, which are then subject to impacts from County development.

8

Policy LU 1.3.6: OVOV does not encourage retention of natural drainage patterns at either the Casden or the Smiser properties.

Policy LU 2.2.3: Development in areas such as Casden and Smiser is inconsistent with the goal of protecting watersheds, habitat, wildlife connectivity and recreational opportunities.

Policy C.1.2.9: Doesn't guarantee, but emphasizes provision of right-of-way for non-vehicular transportation modes. Walking and bicycling, contrary to the stated goal, will

become much more treacherous, dangerous endeavors given the proposed circulation plan, perhaps more so as drivers struggle with road rage under LOS E and F conditions.

Policy CO 1.1.2: The goal of preservation of “watersheds and ecosystems to maintain functional viability of these systems” is stated in various places throughout the proposed General Plan, but there are no real provisions for guaranteeing that protection, and areas designated for higher density — notably Casden and Smiser properties, are testament to the contrary intentions. Another lack of commitment is evidenced in Policy CO 1.1.3 below, which would “encourage”, but not require preservation of natural ecosystem functions.

8

Objective C 2.6: “Ensure that funding and phasing of new transportation improvements is coordinated with growth.” The policies here are related to finding funding sources. There is nothing here to ensure that funding and phasing keeps pace with growth. Where in the City’s history has any major transportation improvement met a deadline consistent with the opening of a new development?

SCAG Goal #7:

Policy C2.5.2: If the goal is safety, then the “physical constraints” of a property should not be allowed to “preclude a second access point.” Otherwise the goal should clearly state that safety is secondary to other priorities.

SCAG Compass Growth Vision Principle 1.2: “Locate new housing near existing jobs and new jobs near existing housing.”

Are the “villages,” established under specific plans, located within a short distance from the valley’s major employment centers? How many well-paying jobs will be contained within the villages’ commercial and office sites?

Policy C 4.1.6: ‘Provide incentives to promote transit-oriented development near rail stations.’

Why would incentives be needed to entice developers who specialize in mixed-use products to build near transit? Wouldn’t use of incentives for that purpose make it difficult to incentivize developers to create housing for a mix of income levels?

9

Objective C 5.4 and Policy C 5.4.1: How much of the actual cost of transit services will be covered by transit impact fees levied on new development? How much of that cost will have to be covered under the City’s CIP funds? How will the City establish a timeline for expansion of transit services to keep pace with development? How will the City monitor transit services to ensure that services will be available when new development receives certificates of occupancy? What steps will the City take if funds are not available? Will the City deny approval of a development if transit services are not available?

SCAG Compass Growth Vision PRinciple 1.4: Promote a variety of travel choices.

10

Policy C 4.1.8: What are the current proposals for increases in freight rail services? How does the City proposed to minimize impacts to passenger rail service from increased freight rail service?

Goal C 5: What would be the determining factors in evaluating the feasibility of providing “fly-away” and rapid transit services? Are these projects in competition with road construction and improvements? Or would funds be set aside specifically dedicated to these transit options?

Bikeways, Goal C6:: The Circulation Element proposes to reduce the number of existing bike routes and not add any new bike routes. Even experienced bike riders do not want to ride on heavily traveled arterials. The second policy here states that Class II bike lanes will be provided where “feasible and appropriate.” The third policy expresses the desire to “continue” acquiring or reserving right-of-way for the bicycle circulation system. The fourth policy offers only signage or “alternative routes as appropriate where the City chooses to establish Class III bike routes.” and the fifth policy implies that planning for continuous bikeways will be part of the new General Plan.

The Circulation Element is internally inconsistent in claiming to promote alternative transportation, while reducing bikeways and offering no commitment to expand bicycling opportunities as a “viable choice for all residents.”

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Policy LU 1.2.6: The Placerita Canyon Special Standards District includes the Casden property. Creating a special plan that allows for high density in that area would violate this policy. See also Policy LU 2.1.3 that follows regarding land use types and densities that “reflect the special characteristics, lifestyles, and opportunities that differentiate various communities...”

Policy LU 9.1.1: “Ensure construction of adequate infrastructure to meet the needs of new development prior to occupancy.”

What types of infrastructure and level of completion would be deemed adequate to issue certificates of occupancy?

Policy LU 3.1.5: Without establishing an inclusionary housing policy, the mere “promotion” of housing for a variety of income levels cannot begin to meet the housing needed to achieve a true jobs/housing balance.

Policy LU 8.1.1: Developer fees are insufficient for development of new schools. Local districts regularly promote bond measures to make up for deficiencies in developer and state funding.

How will the City ensure that school districts will have the support they need to build schools for a doubled population? How will the City ensure that the school districts will not be overwhelmed by new student populations living in infill projects who cannot be bused to existing schools?

Goal LU 8: Though this goal aims to provide “equitable and convenient” access to medical services, there is no mention of working with HMNMH or any other hospital to

provide for a second hospital in the valley. If the City can work with other agencies to provide for expanded rail services or developers to create mixed-use projects, why can't the City work with a hospital provider to create another hospital for the nearly one-half million people who are projected to populate this valley?

Objective LU 7.8: If the goal is to protect significant woodlands, heritage oaks, etc, from impacts of development, how does use of Geographic Information Systems, modeling, and other tools, lead to protection of floodplains and floodway areas, oak tree woodlands, SEAs, plant and animal species habitat? The information provided (under Policy CO 1.6.3) for decision-makers offers no assurance of protection. In fact, several potential projects, such as those on the Casden and Smiser properties are in floodplains, but there appears to be no hesitation to build there, only the need to raise floor levels to meet FEMA rules. Where is the assurance of protection for the environment?

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Policy LU 4.1.4: What specific policies will promote economic opportunity for small businesses? Many small businesses are closing, in part, because they can't afford high rents, especially (but, but not exclusively) due to the current economic collapse.

SCAG Principle 4.3

Policy LU 7.2.2: This seems like a very reactive, not proactive, policy. If water supplies are reduced due to unanticipated events of a long-term nature, how would the City "limit, reduce, or otherwise modify growth..." if a project is already in progress? What

proactive measures will the City take to ensure water conservation, not just on landscaping or through installation of low-flow fixtures in new development, but in usage by existing residents and businesses? The General Plan shouldn't just look at future development, but also the incorporation of better practices throughout the existing city as it moves forward.

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Objective C 1.2, Policy C. 1.2.12: This policy is not met because the Circulation Element policies are heavily weighted toward vehicular accommodation, not toward a bicycle friendly environment.

SCAG Principle 4.4: The proposed General Plan does not ensure the use of green development techniques with policies such as CO 1.4.3, which merely "encourages" the use of non-hazardous building materials, non-polluting materials and industrial processed, to the "extent feasible." The presence throughout the proposed General Plan of modifiers such as to the "extent feasible", while somewhat understandable in a guiding document, still lacks a level of commitment to the principles espoused. It suggest that the priorities lie elsewhere.

12

The proposed General Plan, we have been told, is intended to adequately address the worst-case scenario of a doubling of the population. Yet, important data regarding traffic impacts on I-5 and SR-14 and other impacts from this growth are not provided, are

13

conflicted, or are incomplete. Many policies seek to assure us that measures will be taken to protect existing neighborhoods from incompatible new developments, that floodways and floodplains will be preserved, that safety in housing sites and non-motorist travel will be assured, that roads will be completed to accommodate traffic as new development comes on line. But those policies often conclude with modifiers such as "to the extent feasible" and "as appropriate" and there are no policies in place to guarantee that financing will be available for infrastructure before new development is approved.

13

Despite many lofty goals, the proposed One Valley One Vision General Plan is full of contradictions and errors. Contrary to the CEQA goal of informing the public, this nearly 12,000 page document cannot be easily deciphered. Therefore, I respectfully recommend that the Planning Commission urge the City Council to form a General Plan Advisory Committee charged with meeting over a one-year period to reduce this document to key components, ensure that all assumptions are clearly identified, and that errors and contradictions are reduced so goals and priorities are clear to staff, decision-makers, and the public. Noted planner William Fulton, with whom the City contracted on the Newhall Compass Blueprint project, told me at the APA convention in September 2009 that most cities convene a GPAC when revising their general plans. This is an important guiding document for the City and it deserves that level of attention.

14

I appreciate your inclusion of my comments for response. Please call me if you have any questions.

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Kind regards,

Diane Trautman

cc: Maggi Sanchez for distribution to the Planning Commissioners

Letter No. D43 Letter from Diane Trautman, February 22, 2011

Response 1

The commenter stated that she has submitted comments to the OVOV General Plan Environmental Impact Report on November 12, 2010 that included comments she made during Planning Commission study sessions on the General Plan Elements. Please see letter **Response D25**.

Response 2

The commenter stated that she concurred with statements made by Mr. Michael Noam in his letter dated February 18, 2011. The commenter indicated that she shared his concerns regarding the comparison of the existing General Plan to the proposed OBOB Plan rather than to current conditions. Please see letter **Response D37, Response 2**.

Response 3

The commenter addresses Land Use Element policies and how they address specific proposed development plans. The comment raises issues that do not appear to relate to the OVOV Plan Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter does not concur with the Draft EIR that the OVOV Goal LU 5 and Goal C2 are consistent with SCAG Goal #1. The commenter further states the intent of Goal C.2 cannot be met unless the City actively pursues expansion of alternative transportation options. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 5

The commenter does not concur with the Draft EIR that OVOV Policy C.1.1.7 is consistent with SCAG Goal #2. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 6

The commenter does not concur with the Draft EIR that the OVOV Goal C1, Policies C 1.1.3 and C 1.1.12 are consistent with SCAG Goal #3. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 7

The commenter does not concur with the Draft EIR that the OVOV Policies C.1.1.8, C.1.1.9, C2.2.4, LU 5.2.1 and 5.2.4 are consistent with SCAG Goal #4. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 8

The commenter does not concur with the Draft EIR that the OVOV LU 1.1.4, 1.3.6, 2.2.3, C 1.2.9, CO 1.1.2 and Objective 2.6 are consistent with SCAG Goal #5. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 9

The commenter does not concur with the Draft EIR that the OVOV Policy C 2.5.2, C 4.1.6, Objective C 5.4 and Policy 5.4.1 are consistent with SCAG Goal #7. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 10

The commenter asks questions concerning Policy C 4.1.8, Goal C5, Bikeways Goal C6, Policy LU 1.2.6, LU 9.1.1, LU 3.1.5, LU 8.1.1 Goal LU 8, Objective LU 7.8 and LU 4.1.4 in relation to SCAG Compass Growth Vision Principle 1.4 but does not address the content of the Draft EIR. The comment will be included as

part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter voices concerns regarding the enforceability of Policy LU 7.2.2 and does not believe that Objective C 1.2 and Policy C 1.2.12 are effective in meeting SCAG Principle 4.3. The comments do not address the content of the Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 12

The commenter does not believe that the General Plan ensures commitment of the use of green development techniques and therefore inconsistency with SCAG Principle 4.4. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. The commenter also addresses Objectives and policies of the General Plan and not the content of the Draft Program EIR.

Response 13

The commenter states that important data regarding traffic impacts on I-5 and Sr-14 are not provided, conflicted or are incomplete. The commenter states that policies are proposed to protect existing neighborhoods from incompatible developments but that many of these policies have modifiers such as “to the extent feasible” and “as appropriate.” Lastly, the commenter states that there is no guarantee that financing will be available for new infrastructure before new development is approved. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 14

The commenter states that the OVOV General Plan, despite lofty goals is full of contradictions and errors. The commenter recommends that the Planning Commission urge the City Council to form a General Plan Advisory Committee to reduce the document to key components, ensuring that all assumptions are clearly identified and that errors and contradictions are reduced so goals and priorities are clear to staff, decision-makers and the public. She stated that most cities convene a GPAC when revising their General Plans. The comment only expresses the opinions of the commenter.

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

C.D.C.
COMPREHENSIVE DEVELOPMENT CONSULTING
19425 Soledad Canyon Road Suite # B 412
Santa Clarita, California 91351

February 22, 2011

Jason Symisko, Senior Planner
Planning Department
City of Santa Clarita
23920 Valencia Blvd. Suite # 300
Santa Clarita, California 91355

RE: Written Comments and Testimony for Inclusion in the Environmental Impact Report Response to Comment Section for the New Santa Clarita City General Plan (the City portion of "One Valley, One Vision").

Sent via e-mail to Jason Symisko at his city email address

Dear Mr. Symisko:

This testimony is being sent to you via email. The testimony is in Microsoft Word and is an attachment to a cover email.

Thank you for accepting this testimony (per our conversation of Tuesday, February 22, 2011 2011), a few hours later than the deadline of February 22, 2011. Per your kind comments, we will look forward to the written response to this testimony in the proposed final Environmental Impact Report for the City's new General Plan.

1

The following is the General Plan and Plan EIR testimony and comment.

1. LAND USE ELEMENT HAS A MAJOR DEFECT

The Land Use Element shows a "shortfall" of approximately 2,000 acres of job generating industrial, business park, or commercial land use.

This represents a fatal flaw in the entire General Plan which must be rectified.

Here is why.

2

The new General Plan proposes tens of thousands of additional residential dwelling units. Those residential dwelling units have a significant and unavoidable effect on air quality, jobs housing balance, traffic congestion, the need for new roads, the need for additional public transportation, and the need for revenue to provide urban services.

All throughout the plan, a requirement is stated that the new plan will provide two new planning area jobs for every new residential dwelling unit.

However,, even with the assumed buildout of all industrial, business park, and retail/commercial shopping center areas, it is impossible for the new plan to provide the new “2 jobs per house” requirement.

Again, this is because the new plan is conservatively 2,000 acres short of job creating land uses, as mentioned above.

Therefore, the entire land use element must be thoroughly reworked to provide this additional 2,000 acres of job creating new land uses.

This shortfall exists despite the presumed completion and full build out of the Needham Ranch at Santa Clarita Business Park, Centrepointe Business Park, the revitalization of Old Newhall, the completion of the Valencia Industrial Center, the Valencia Corporate Center, the Valencia Commerce Center, the job generating land uses in the Newhall Ranch Specific Plan, and the absorption of currently vacant store fronts throughout the planning area.

In the revised land use element the City must show new land use designations that have the realistic possibility of providing 2,000 acres or more of job rich land uses.

Please be sure to address this issue in the necessary detail. Please do not resort to a technique sometimes used in inferior CEQA response documents. This inferior and discredited approach responds to critical comments with the terse phrase “comment noted”.

2. SPECIFIED TRAFFIC MITIGATION NOT FEASIBLE

The traffic element of the new general plan proposes that traffic circulation will not be catastrophic because of the achievement of a job housing balance. The assertion is that huge numbers of Santa Clarita residents will be driving extremely short distances to their local jobs. The traffic assumptions also propose that significant numbers of residents, working at local jobs, will not drive to those jobs. The assumption is they will take public transportation, walk, ride bicycles, or use car pools.

However, because of the demonstrated 2,000 acre shortfall in job generating land use, the concept that significant numbers of new residents will be working close to their homes is false.

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The traffic study needs to demonstrate options. One of these options must be that the current 50% of Santa Clarita residents who work outside the Santa Clarita Valley will continue on into the foreseeable future.

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This reality will create levels of traffic congestion far higher than those shown in the traffic study section of the EIR.

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Please modify the traffic study to reflect this condition as a necessary option.

3. AIR QUALITY ANALYSIS IS INCORRECT

Because of the 2,000 acre shortfall in job creating land use, the air quality assumptions, based on people being able to work close to home, are not correct.

Therefore the effect on air quality in the planning area for the intensity of development must be recalculated based on the premise that large numbers of valley residents will continue to leave the valley for jobs.

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This change must be inserted into the plan since the concept of two jobs per house (which is now shown to be false) was shown to be mitigation for the new plan's effect on air quality.

4. S.B. 375 GOALS NOT ATTAINED

The new plan proposes that there will be a significant volume of "transit oriented development" . The plan, however, fails to show the actual number of houses and jobs that would be contained in such "mixed use" projects.

Please amend the plan to show exactly how many jobs and how many residential units would be found in so called "mixed use" projects in the planning area.

7

Without these precise numbers, it is impossible to determine the effect of the plan on critical infrastructure needs, such as roads, parks, schools, and on air quality.

5. INCREASED LAND USE DENSITIES NOT MITIGATED.

Land use densities that allow the population in the valley to increase from 326,000 to 485,000 are shown in the city land use element. Again, the mitigation for the effect on the environment of an additional 160,000 above the existing plan is that these people will work in local jobs.

8

In the response to comments, please list examples of where a so-called “jobs housing balance” has been successful in achieving a reduction in traffic congestion and in air pollution.

8

Please also give examples of where in greater Southern California so called “mixed use developments” have been successful in reducing traffic congestion and air pollution on a scale comparable to that shown in the new general plan.

9

6. NO NEW MAJOR ROADS IN THE PLAN

Please explain in detail how the circulation element in the new plan is able to work despite the fact that no new major roads are proposed.

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Again, the mitigation for no new roads is supposed to be a majority of area residents working locally.

Please recalibrate the traffic model to show the levels of congestion that will occur if the 2,000 acre local job land use shortfall is not rectified.

11

7. CITY PLANNED JURISDICTION REDUCED

The City Council made a policy decision that the city’s general plan would encompass an area of 140 square miles. This was in recognition of the frustration that the City of Santa Clarita was reduced during the formation process from 140 to 39.4 square miles.

No explanation is given as to why the planning area in the city general plan has been dramatically reduced down below the 140 square miles shown in the existing general plan.

12

Please issue a correction to the new general plan planning area restoring the city plan boundaries to 140 square miles. Changing this boundary to the vastly lesser area, is a major policy shift never approved by any elected official. Please fix this.

8. INSTITUTIONAL LAND USES NOT SHOWN

The new plan requires almost 100 new schools. No sites for any of these are shown in the land use map. This is especially significant since at least six additional high schools of 60 acres each will be needed. These are large enough lots that they must be shown in the land use map. Sites for new regional and local parks, fire stations, police stations, sewage treatment plants, libraries, and community college facilities also are not shown.

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Please correct this significant omission in the land use element.

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9. LONG TERM ECONOMIC DEVELOPMENT NOT SPECIFIED

The economic goals and policies lack specificities, benchmark goals, targeted industries, and regional and subregional emphasis. What detail is listed is keyed again to the concept that there will be substantially increased local jobs.

Again, without an additional 2,000 acres of job generating land use, providing these jobs will not be possible. The plan needs to show precisely how this shortfall will be corrected.

14

Since the entire plan is so dependent upon these additional jobs, more precise information is necessary about how these jobs will be brought into the planning area, and how they will generate sufficient wages for the job holders to be able to live in the planning area.

Please correct this in a revision to the plan and the EIR.

10. REVENUE NEEDS INFEASIBLE TO MEET.

The build out of the general plan will require billions of dollars of new infrastructure. The provision of this revenue is not provided in the plan. What revenue is alluded to is thought to be generated by the provision of two jobs for each new house. However, since job producing land use is 2,000 acres short, the revenue needs for the new plan to be successful cannot be met.

15

Please include an accurate projection of the revenue needs for the completion of The infrastructure needed for the new plan.

11. POLICY VIOLATION, PLAN ELEMENTS REDUCED

With no notification to the public, or approval from the City Council, the number of elements in the new plan was reduced to the legal minimum compared with the elements listed separately in the existing plan. Please explain in writing the justification for this significant shift in policy emphasis being created without public input or council permission.

16

Please also be prepared to reformat the plan to expand it back to the number of separate elements present in the existing plan.

16

Please justify and explain the reason for this unilateral staff policy decision.

12. INFRASTRUCTURE MASTER PLAN MISSING

To build out the new plan, infrastructure in excess of 20 billion dollars is needed. Although an infrastructure master plan is not legally required, having one clearly makes for a superior plan. Please, in the final plan draft, do one or the other of the following : A. Prepare an infrastructure master plan, or B. Attempt to explain why such a plan is not needed.

17

13. 2425 ACRES OF ACTIVE PARKLAND NEEDED

Plan buildout requires 2,425 acres of active parkland to meet the recommended standard of 5 acres for each 1,000 residents.

The new plan fails to show how this significant parkland requirement will be provided. Please correct this in the land use element, and the parks and recreation section.

18

14. IMPLEMENTATION MECHANISM MISSING

Numerous goals and policies throughout the plan make reference to planning priorities and mitigation measures. However, no mechanism to implement these infrastructure and mitigation measures is shown to be present in the plan.

The existing plan indicated that the city would adopt the court ordered Los Angeles County Development Monitoring System infrastructure concurrency mechanism.

However, the city has never taken the step to adopt the DMS.

Unless strong implementation mechanisms are inserted into the plan to require that goals and policies actually be performed, the plan will be legally deficient.

19

15. TRAFFIC MODEL GROUND COUNTS NEEDED

The traffic study section of the EIR relies excessively on computer modeling. Real world traffic ground counts are clearly needed, if the traffic congestion numbers projected are to be accurate. This is especially acute from the traffic volumes shown using the roads and freeways that traverse Newhall pass. The traffic volumes shown in Newhal pass are significantly lower than they actually will be.

20

Please correct this significant flaw in the traffic study by performing actual ground counts on the roads and freeways going through Newhall Pass. Please include these revised numbers in the final proposed EIR.

16. ADDITIONAL "NEWHALL PASS" SYSTEMS MISSING

Numerous traffic studies going back at least 25 years have indicated that new major points of access connecting Santa Clarita Valley to the San Fernando Valley are missing.

21

The circulation element of the new plan has a significant omission. No new southern access points are shown or even discussed and analyzed.

A revised traffic study with and without one and then two additional connector roads to the San Fernando Valley must be included. To not do so will cause congestion catastrophe for the foreseeable future. Please make this correction before the environmental document is regarded as complete.

17. EXAMPLES OF SUCCESSFUL 'MIXED USE' NEEDED

The new general plan makes use of so called "mixed use" development projects in record quantities to achieve a jobs housing balance, create transit oriented development, and housing in accordance with the new population "cap" (or projection) of 485,000/

22

CEQA requires that mitigation measures be feasible. For the new plan to depend on these "mixed use" projects, it will be necessary to list examples of where such projects have been successful.

In this listing, please only list communities that are physically and demographically similar to Santa Clarita. Communities such as Irvine, Simi Valley, Thousand Oaks, and communities in Riverside and San Bernardino should be analyzed. High density urban core areas such as downtown Los Angeles would not be appropriate to consider.

22

Please revise the environmental impact report to include analyses verifying whether or not these kinds of projects have ever been successful in a setting such as Santa Clarita.

18. SAFETY ELEMENT INCOMPLETE

Information exists to the effect that three major dams (Castaic, Pyramid and Bouquet) will rupture in an earthquake stronger than 7 on the Richter Scale. Acknowledgement of this and analysis of the effects of these ruptures must be included for the safety element to be complete.

23

In addition, Santa Clarita's history with DDT pesticides and manufacturing residues indicate that numerous sites exist in the planning area that present a toxic hazard.

As is the case in the existing plan, these toxic sites should be identified along with analysis as to how they will be made safe.

19. PLEASE REFRAIN FROM 'COMMENT NOTED' RESPONSES

Sometimes testimony is responded to in environmental documents with the phrase "comment noted". When this occurs, it is because the lead agency believes that a more thorough response is not called for in the "CEQA" guidelines. Please refrain from using this response tool regarding the testimony contained herein.

24

20. PLEASE INCLUDE 'COMPARISON MAPS'

Maps showing the changes from the existing general plan, compared with the new general plan have been created. They are not, however, apparently to be found anywhere in the new general plan, the plan EIR, or the technical appendices.

25

Please include them, since they will assist the public in understanding the new plan.

21. PLEASE JUSTIFY 'GLAZER' PLAN CHANGE

The vacant land at 13th street and Railroad avenue was very carefully considered in the existing general plan. Because of the limited access, the flood plain of Newhall Creek, liquefaction zones and immediate proximity to rail line, only a small business park use was determined to be feasible.

26

The new general plan proposes a "mixed use" land use which would involve high density residential.

Please explain in the EIR how this significant deviation from the existing general plan can be justified.

22. RAIL LINE TO NEWHALL RANCH MISSING

The certified EIR for the proposed Newhall Ranch project indicated that this project would be served by a rail line connecting to the Metrolink system in the City of Santa Clarita.

27

The new plan does not show a proposed connection for this rail service.

If this rail connection is in fact deleted, please indicate that clearly in the maps and the traffic studies for the new plan.

23. NEW FREEWAY RAMPS, HIGHWAY 14

Frequently additional freeway on and off ramps to the 14 Freeway have been proposed and are clearly needed. These include an additional ramp in the Hondo Oil property, another ramp complex between Via Princessa and Sand Canyon, and another ramp complex between Shadow Pines Blvd and Agua Dulce Canyon Road.

28

The circulation element should include analysis about the effect of these new ramps on traffic service in the area.

28

24. ELECTRIC CAR EFFECT ON AIR QUALITY

The automotive industry world wide is predicting significant use of electric vehicles during the lifetime of the new general plan. Analysis of the effect of this electric car usage should be included in the EIR section regarding air quality.

29

25. UP TO DATE NOISE CONTOUR MAPS

Noise contour maps that reflect the changes in the land use element do not appear to be as complete as is required. Please revise and correct the noise contour maps so that they show the correct information.

30

Thank you for this opportunity to comment, and thank you for responding to these comments in writing as part of the proposed final environmental impact report.

Best personal regards,

Allan Cameron

Letter No. D44 Letter from Comprehensive Development Consulting, february 22, 2011

Response 1

This comment is an introduction to comments that follow. No further response is required.

Response 2

The comment contends that the General Plan Land Use Element is flawed, there is a shortfall of 2,000 acres short of job-creating land uses and it is impossible to create a 2:1 jobs/housing ratio. According to OVOV Land Use Policy 4.2.2, the goal at buildout is 1.5 jobs per household. The comment raises issues that address the Land Use Element and not the Draft EIR and do not appear to relate to any physical effect on the environment. However, because the comment does not raise an environmental issue, no further response is required. The comment also only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 3

The comment believes that there will be a 2,000 acre shortfall in job generating land use and does not believe that many people will work close to their homes. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment states that the traffic study needs to demonstrate options. The comment suggests that one option should be that 50 percent of residents continue to work outside of the Santa Clarita Valley. The OVOV traffic study need only analyze the proposed project. There is no requirement in the *CEQA Guidelines* that requires that options be evaluated in the project traffic study. Options to the project are evaluated in Draft EIR Section 6.0, Alternatives. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 5

The commenter states that providing an option in the project traffic study depicting 50 percent of residents working outside of the Santa Clarita valley will create higher levels of traffic congestions than what is shown in the traffic study. Please see **Response 4**, above.

Response 6

The comment states due to their conclusions that there would be a 2,000 acre shortfall in job creating land uses, the air quality assumptions are incorrect and must be revised. The City does not concur that there is a shortfall in job creating land uses. Consequently, there is no need to revise the air quality analysis of the Draft EIR. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The comment states that the goals of SB 375 are not attained because the Plan should be amended to show how many jobs and how many residential units would be found in mixed-use projects in the planning area. OVOV population estimates included potential capacity potential in the mixed use projects. The City believes that the OVOV Plan addresses all of the goals of SB 375 as outlined in Draft EIR Section 3.4, Global Climate Change.

Response 8

The comment asked for examples where jobs/housing balance has been successful in reducing traffic congestion and air pollution on a scale that is comparable to the OVOV Plan. The comment raises issues that do not appear to relate to any physical effect on the environment and the Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 9

The comment asked for examples where mixed use developments have been successful in reducing traffic congestion and air pollution on a scale that is comparable to the OVOV Plan. The comment raises issues that do not appear to relate to any physical effect on the environment and the Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The comment requested an explanation as to how the Circulation Element in the OVOV Plan would work despite no new roads proposed. There are roads on the Circulation Map that, while planned, have not been built, that will accommodate both existing and future traffic.

Response 11

The comment requested that the traffic study be recalibrated to show the level of congestion that would occur if the 2,000 acre local job land use shortfall is not rectified. Please see **Response 6**, above. Revisions to the traffic study are not required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 12

The commenter is referring to a City Policy but gives no timing as to when this Policy was made for verification. City staff is unaware of such policy. The comment generally refers to annexation and planning issues that transpired 20 years ago, and are within the jurisdiction of LAFCo. Nonetheless the comment does not address the content of the Draft EIR. The area covered in the City's OVOV General Plan encompasses 485 square miles of the Santa Clarita Valley. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 13

The comment states that institutional land uses are not shown on the Land Use Map. This element constitutes the required Land Use Element for the City's General Plan. It designates the general location of land uses including residential, commercial, mixed use, industrial, public and institutional, transportation, utilities; open space and recreation, agriculture as well as other land uses. The Land Use Element addresses the permitted density and intensity of the various land use designation as reflected on the Land Use Map (Figure 2.0-4, Proposed Land Use Policy Map). The exact location of future institutional land uses is not yet known and therefore cannot be shown on the Land Use Plan.

Response 14

The comment refers to General Plan economic goals and policies but does not address the content of the Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The comment requests an accurate projection of revenue needs requires for the infrastructure needed to implement the OVOV Plan. The comment raises economic issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 16

The comment states that the number of new elements in the new Plan was reduced to the legal limit compared to the number of elements in the existing plan. The comment wanted justification for this approach. Draft EIR, Section 2.0 Project Description page 2.0-1 states:

For purposes of organizing the City's General Plan more efficiently, the issues of conservation and open space have been combined into a single chapter. Each of the elements contains maps and text setting forth goals, policies, and programs for the long-range physical development within the City's Planning Area.

No further response is required.

Response 17

The comment stated that an Infrastructure Master Plan is needed or an explanation should be given on why such a plan is not needed. Please see **Response 15**, above.

Response 18

The comment states that the Plan buildout would require 2,425 acres of active parkland to meet requirements and questioned how the parkland would be attained. The comment is incorrect. Draft Section 3.16, Parks and Recreation states:

The City is currently deficit in its parkland acreage by 639 acres per the existing General Plan goal of 5 acres of parkland per 1,000 people and deficit by 285 acres per the Quimby Act standard of 3 acres of parkland per 1,000 people. The projected population for the City's Planning Area is 275,000. Based on population projections and the General Plan goals for parkland acreage of 5 acres per 1,000 people, assuming development of all current proposed parkland, the City would be deficit in its parkland acreage by 916 acres and deficit by 366 acres per the Quimby Act standard of 3 acres of parkland per 1,000 people (Table 3.16-2). If the City is unable to acquire the needed parkland as the City reaches buildout, then potential impacts on existing parks, trails, and recreation facilities would be significant.

As noted in the Parks and Recreation section of this environmental impact report (EIR), the Quimby Act states that

The dedication of land, or the payment of fees, or both, shall not exceed the proportionate amount necessary to provide three acres of park area per 1,000 persons residing within a subdivision, unless the amount of existing neighborhood and community park area, exceeds that limit, in which case the legislative body may adopt the calculated amount as a higher standard not to exceed five acres per 1,000 persons residing within a subdivision.

Therefore, a city or county may require 3 acres of park space per 1,000 residents for new development.⁴

Response 19

The comment states that there is no mechanism to implement the goals, policies and mitigation measures. The CEQA Guidelines require that a Mitigation Monitoring and Reporting Program (MMRP) be prepared and adopted by the decision-making body. The MMRP however, is not a part of the Draft EIR, but it will be presented to the City Council prior to action taken on the OVOV Plan. Should the OVOV Plan be adopted, each forthcoming project would be reviewed to the Goals and Policies of the General Plan, as appropriate, as not all goals and policies are applicable to a project, as each project is different. Furthermore, some goals and policies are only applicable to the City of Santa Clarita.

Response 20

The comment stated that traffic model ground counts are needed as the traffic study relies excessively on computer modeling. The comment further states that traffic volumes shown in the Newhall Pass are significantly lower than what they actually will be. Draft EIR Section 32, Traffic and Circulation, Table 3.2-4 includes a substantial number of major arterials in the planning area. However, the General Plan traffic study was never intended to include every arterial roadway in the Santa Clarita Valley, but rather, a representative sample based on available traffic counts.

Response 21

The comment states that numerous traffic studies going back at least 25 years have indicated that new major points of access connecting the Santa Clarita Valley to the San Fernando Valley are missing, and consequently the Circulation Element is flawed. The comment further stated that the traffic study with and without one and then two additional connector roads to the San Fernando Valley must be included. The comment provides no specifics as to specifically what “numerous traffic studies” recommend a connection to the San Fernando Valley. The comment only expresses the opinions of the commenter.

⁴ California Government Code, Section 66477.

The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 22

The comment asked for examples where mixed use developments have been successful in a community such as Santa Clarita. Please see **Response 9**, above.

Response 23

The comment states that the Safety Element is incomplete due to dam failure. In addition, the comment states that Santa Clarita's history with DDT pesticides and manufacturing residues indicate that numerous sites exist in the planning area. Hazardous materials sites in the City of Santa Clarita Planning Area are presented in Table 3.11-1 of the Draft EIR. The City believes that the Safety Element provides numerous policies addressing hazardous impacts as discussed in the Draft EIR, Section 3.11 Human Made Hazards pages 3.11-22 and 23:

“The Los Angeles County Hazardous Waste Management Plan provides direction for the proper management of all hazardous waste in the County of Los Angeles and 38 contract cities (this includes the City's Planning Area), including data on hazardous waste generation, existing treatment facilities, household and other small generator waste, and siting criteria for hazardous waste management facilities (**Goal S 4, Objective S 4.1, Policy S 4.1.2, Objective S 4.2, Policy S 4.2.1, Policy S 4.2.2, Policy S 4.2.3, Policy S 4.2.4**). The potential for future residents and employees of the City's Planning Area to encounter accidental exposure from hazardous materials would increase with the expected buildout described in the General Plan. The addition of new residential housing and commercial/industrial businesses would involve development on land that is currently vacant, or that has had existing residential or commercial/industrial businesses on site in the past. There is the potential for some of this land to contain hazardous materials. The General Plan's goals, objectives and policies require the identification of hazardous wastes (**Objective S 4.1**) and remediation of contamination of soil and groundwater, and require that contaminants be cleaned up to the satisfaction of the City and other responsible agencies (**Policy S 4.1.2**) as well as the proper storage, handling, and disposal of hazardous materials (**Objective S 4.2**), which will protect residents and employees from increased exposure of hazardous materials. The potential for hazardous impacts from future projects implemented as a result of the General Plan will be evaluated on a project by project basis (**Policies S 4.2.2 and S 4.2.3**).

Implementation of **Policy S 4.2.4** and **Policy S 4.2.3** will provide direction for businesses and households within the City's Planning Area in developing efficient ways to store use and dispose of hazardous materials, along with providing educational opportunities on why hazardous wastes are dangerous, and how to dispose of small quantities and amounts of these wastes by Santa Clarita Valley residents. **Policy S 4.2.1** and **Policy S 4.2.2**, will provide decision makers, and developers with the ability to restrict future locations on the Land Use Map of industries or businesses using hazardous materials to minimize impacts on residents and other sensitive receptors in the event of a hazardous materials incident, and to provide guidance on what types of buffers and setbacks could be used to reduce possible hazardous waste exposure to residents."

Potential dam failure impacts are noted in detail in Draft EIR, Section 3.12, Hydrology pages 3.12-7 and 8. Furthermore pages 3.12-38 and 39 address the potential impacts of dam failure as follows:

As discussed above, there is one main reservoir in close proximity of the City's Planning Area that could cause flooding through the Planning Area if a breach in the dams supporting the water were to occur. The Bouquet Canyon Reservoir has two earth-filled dams, one on the west side overlooking Cherry Canyon and one on the south side above Bouquet Canyon. If the earth-filled dam on the Cherry Canyon side were to fail, the water behind the dam would flow west for approximately 2 miles through the Canyon into San Francisquito Canyon, and then south for approximately 11 miles into the Santa Clara River. The Bouquet Creek dam, if breached, would drain south through Bouquet Canyon for 17 miles, into the Santa Clara River, within the City's Planning Area. The possibility of the failure of these dams during a catastrophic event is considered unlikely due to their type of construction; however, a slight possibility still exists that these dams could fail. Therefore, impacts on land uses within the dam inundation zones within the City's Planning Area could be potentially significant.

The Castaic Dam holds back the water from Castaic Lake, and is located on Lake Hughes Road, 1 mile northeast of Interstate 5. The inundation area, if this dam were to be breached, would not flood areas of the City. Should a breach in the dam occur, water would flow south in Castaic Creek for approximately 5 miles to the Santa Clara River. Castaic Creek is located north and west of the City of Santa Clarita boundaries and the portion of the Santa Clara River, where the water would flow into, is located south and west of the City's boundaries. The potential for flooding to occur as a result of the breach of Castaic Dam, within the City's Planning Area would be minimal.

*As discussed under existing conditions for this section, the City has prepared maps of areas within its Planning Area that are subject to inundation from dam failure from the Castaic and Bouquet Dams (**Policy S 1.1.4** and **Policy S 1.2.5**). Dam inundation area maps will allow decision makers within the City's Planning Area to determine development plans that would be appropriate within potential dam inundation areas (**Objective S 1.1**), protecting the public and property within the City's Planning Area, and providing protection if a geologic catastrophe were to damage dams upstream from the City's Planning Area (**Goal S 1** and **Objective S 1.2**).*

Response 24

The comment requested that sometimes testimony is responded to as “comment noted.” The commenter requested that this phrase not be used in responding to testimony. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 25

The comment requested that comparison maps (of the existing and proposed new plan). The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 26

The comment requested explanation of why the vacant land at 13th Street and Railroad Avenue was changed in designation from the existing plan. Many factors were considered when designating properties on the Land Use Map. The proximity of the rail line was a factor when considering a Mixed Use designation for the property in question as well as assisting in the economic revitalization of Downtown Newhall. But many other factors were considered as well. Please see Draft EIR Section 3.1 pages 3.1-23 and 24 for a general discussion of the mixed use designation.

Response 27

The comment states that the Newhall Ranch would be served by a rail line connecting to Metrolink and that this line should be shown. The rail line has not been deleted. The Newhall Ranch Specific Plan EIR stated that right of way would be retained. Right-of-way has been retained. No further response is required.

Response 28

The comment states that SR 14 on and off ramps have been proposed and are clearly needed. All freeway on –and off-ramps on SR-14 that have been approved by Caltrans were analyzed in the OVOV traffic study. No further response is required.

Response 29

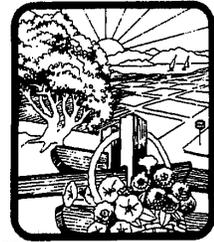
The comment stated that the automotive industry is predicting a significant use of electric cars during the lifetime of the OVOV Plan and that this should be evaluated in the air quality section of the Draft EIR. It is unknown at this time as to how electric cars will be accepted by the general public. Should the general

public begin to accept electric cars en masse, it can be expected that air quality will improve. However, that would be speculative and would not be appropriate in this EIR. The Air quality section of the Draft EIR, made accommodations for the use of multi-modal transportation sources in its analysis and concluded a significant and unavoidable air quality impact.

Response 30

The comment states that the noise contour maps appear to be incomplete and should be revised to show correct information. The commenter does not state what information is incorrect on the noise contour maps. The City has reviewed the noise contour maps and can find no errors. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

SCOPE
Santa Clarita Organization for Planning and the Environment
TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY
POST OFFICE BOX 1182, SANTA CLARITA, CA 91386



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FEB 22 2011

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

2-22-11

City of Santa Clarita
Mr. Jason Smisko, Supervising Planner
23920 Valencia Blvd...
Santa Clarita, CA91355

Please Copy to All Commissioners

Re: Santa Clarita General Plan and associated permits – One Valley One Vision

Dear Commissioners and Mr. Smisko:

We would like to begin by expressing our concern over the choice of Impact Sciences to produce the EIR for this General Plan update. Impact Sciences is the same firm that prepared all the environmental documents for the Newhall Land projects along the Santa Clara River, both in the City of Santa Clarita and for the County, including the environmental documentation for the Newhall Ranch Project. During the last ten years, their biological consultants somehow forgot to disclose the spineflower in the Newhall Ranch area where Newhall Land was later fined for destroying this rare plant. They failed to find several rare bird species and amphibian species in Newhall Ranch and in other projects that were discovered by others later. In the past, the biologists have been forced to sign confidentiality agreements with the developer promising not to disclose to others any of their work for this firm. (Why would one need such an agreement if all the surveys and creatures discovered are accurately disclosed in the environmental document?)

1

Other impacts are consistently downplayed or obscured. While it may be that Impact Sciences does not have complete control over the choice of consultants used for the DEIR, as prime contractor, they or the City should exercise oversight as to the quality of the material submitted. Inaccurate information fails to provide the decision-makers with the facts they need and discourages the public from participating.

Also, a document that contains some 10,000 pages (including appendices) is so voluminous that the controversy is "hidden in plain sight".

2

We assert that agencies should not be allowed to hire consultants to work on a general plan update when those consultants are also working for the major developers who have much to benefit or lose if the plan doesn't go their way. This is the situation in both the General Plan Update (OVOV) and CLWA's proposed consultants for their 2010 Urban Water Management Plan. At the very least, consultants should be required to disclose any such conflicts.

Two Separate EIR Processes

The Executive Summary describes this project in the following manner:

3

“One Valley One Vision (OVOV) is a joint effort between the County of Los Angeles (County), City of Santa Clarita (City), and Santa Clarita Valley (Valley) residents and businesses to create a single vision and set of guidelines for the future growth of the Valley and the preservation of natural resources. Realizing that development within both jurisdictions can have regional implications, the County and City have jointly endeavored to prepare planning policies and guidelines to guide future development within the Santa Clarita Valley.”¹

3

If this is truly an accurate description, we wonder why the public must be subjected to two separate processes, one for the City of Santa Clarita and one for the County of Los Angeles, as well as two extensive detailed and entirely separate EIRs. Such a duplicative and time-consuming process is extremely onerous for the public, who must read thousands of pages of materials, compare them to find differences or conflicts, make two sets of written comments and attend two sets of public hearings.

Such an onerous and time-consuming public process serves to discourage public participation in this most important of land use approvals. It is also unnecessary. Concurrent hearings on EIRs and EISs is a common occurrence between the California Dept. of Fish and Game and the Army Corps of Engineers on issues regarding the river system in the Santa Clarita Valley. If these two entities are able to work together to reduce the burden on the public of reviewing two separate documents certainly the County and the City of Santa Clarita could have accomplished this as well.

4

A dual process does not meet the stated objective of this Plan, i.e. “Foster public participation in the planning process for the Area Plan”². We therefore continue to request that these two processes be merged, the EIRs combined and all public hearings be held concurrently in order to allow the general public to be more effectively involved.

5

Further, in many cases the County has stronger governing ordinances than the City. This is the case for the Green Building Standards, Drought Tolerant Landscaping rules, Significant Ecological Areas and the Oak Ordinance. So where on set of mitigation measures might be appropriate for the County, another set may be required to mitigate impacts in the City.

6

The current 1991 City General Plan was completed with the help of a citizens’ committee (the “GPAC”), that met in open session for two years. Our own SCOPE president, Michael Kotch, was a participant in this extensive community process.

7

The City claims such involvement in this Plan and points to meetings held ten years ago. We note that there was a substantial hiatus and a change in City managers between those early meetings and the scoping session held on August 4th, 2008. While the City claims to have reached out to various groups for this update, the extent of the involvement seems to have been to present a finished plan, not to receive input. Perhaps due to this abridged civic process, many of the concerns listed in the Scoping meeting notes (DEIR Appendix 1_0b) seem not to be addressed.

8

¹ P.1.0.-1

² DEIR, Executive Summary, p. ES-3

Population

The proposed General Plan updates for both the City of Santa Clarita and surrounding County areas are based on a large projected population increase, over double our current population, during the next decade. Such a projection will require densification and subsequent zoning changes that will increase property values for developers, but could destroy the quality of life in many neighborhoods.

Such projections are nothing new. We thought it might be interesting to submit into the record a portion of an editorial by Michael Kotch, a former SCOPE president, written in 1996.

“When the Southern California Association of Governments (SCAG) and the Population Planning Section of the County’s Regional Planning Dept. issue massive growth projections for our valley – and when county and city decision makers (or others such as school or water boards) accept these projections without scrutiny – the first question should be, “What they heck are they smoking?”

If SCAG or another agency of government states that there will be 500,000 people in this valley by 2010, (and not the previous 270,000 predicted in the last plan update) many landuse decision makers and utility planners scurry to convert this tentative, speculative, unproven guesstimate, into a goal “SCAG has spoken, we must follow blindly”

Suddenly we are considering increased urban landuses and increasing expensive infrastructure to support the goal. Even if the emperor is on parade without clothes.

A rational and sober analysis on this new “goal” for the Santa Clarita Valley follows:

- *We have today about 170,000 people living here in 56,700 dwellings.*
- *To achieve 500,000 people in this valley by 2010 requires that we, starting today, sell 20 new homes per day. A local real estate broker reported that 20 new units sold in a month is more typical. That’s far short of the goal.*
- *Our growth rate in the “booming 80s” was 5 percent a year. To achieve 270,000 we have to grow about 4% per year. Growth in the Santa Clarita Valley was 2% per year over the past six years. Achieving 270,000 is plausible, but will not happen if our economy stays flat.*
- *Housing 500,000 requires a 13% growth rate – a rate nearly three times that experienced in the expansive 80’s.”*

Now, almost 15 years after Kotch wrote this analysis, his words ring true. Even with the rapid growth that occurred prior to the housing downturn, we have not reached even the 270,000 predicted in the last general plan update of 1993, far less the 500,000 that SCAG began pushing in 1996. Estimates for current population in the SCV are around 252,000 (Draft OVOV Plan, page 3.19-1). The City of Santa Clarita states that the growth rate between 2000 and 2008 was just over 17% or slightly over 2% a year³, again, not anywhere near the projected growth rate that would put us over the 500,000 people projected by our new “One Valley One Vision”

³ See the City’s website:

www.santa-clarita.com/cityhall/cd/ed/community_profile/2007deomographics//population.asp#population

So where does this number come from? SCAG calculates a fairly accurate increase in population for LA County, but where that population will go is entirely arbitrary. Regional projections are determined by what cities push for at the regional level. The “Northern Subregion” is then arbitrarily given a population figure based in large part on lobbying efforts by the development community and the cities. It is then arbitrarily divided again into growth for the Antelope Valley and growth for the Santa Clarita Valley. The projections must be high, because General Plans will fail to pass legal hurdles if they support growth in excess of SCAG projections.

10

Whom does such a large projection benefit and who does it hurt? It benefits developers, engineering firms, concrete contractors, anyone that would have to supply public services to support such a large projection.

It hurts the taxpayer who must pay for all that expansion even though the actual people most likely will not arrive. It will be reflected in tax increases, water and sewer charge increases, moneys spent to expand schools that may in fact be unneeded. It will hurt the environment by promoting and “visioning” expansion beyond our carrying capacity. Santa Clarita has some of the worst air pollution in the nation. More cars and more vehicle trips will add to that. We do not have enough water for all these people. Traffic levels already at level D, cannot be mitigated in many areas and will simply fall to unacceptable levels of E and F. And it hurts future generations because zoning approved based on this huge number precludes changes by future generations to fit new ideas and new needs.

11

Obviously someone has made a mistake. According to the DEIR, “As of January 2008, another 42,000 dwelling units had received land use approval, including 6,000 units within the City and 36,000 units in County areas.”⁴ (Please note that the County DEIR uses the number 39,500⁵, a 2500 unit discrepancy). We would not have some 42,000 approved but unbuilt units if all that housing were really needed. We would not have several specific plans that are approved but unbuilt. We would not have so many vacant commercial buildings.

12

While the County supports this huge population projection based on several goals and policies that will encourage infill and transit oriented projects such as:

“Policy CO 3.1.1: On the Land Use Map and through the development review process, concentrate development into previously developed or urban areas to promote infill development and prevent sprawl and habitat loss, to the extent feasible,”⁶

the City’s plan seems to merely irresponsibly encourage development of floodplains:

“Policy LU 1.1.2: On the Land Use Map, concentrate urban development within flatter portions of the Santa Clarita Valley floor in areas with limited environmental constraints and served with infrastructure.”⁷

13

It additionally encourages non-leapfrog development, development next to existing developed areas and infill of vacant lots, etc. but all the policies end with the wobble words “where appropriate” thus ensuring the Council the option to not enforce the policy.

14

These policies and goals are patently absurd. First, the number of previously approved specific plans, including Newhall Ranch, North Lake and others, preclude compliance with the policies.

15

⁴ DEIR, 3.19-2

⁵ County OVOV DEIR, p.3.19-3

⁶ LA County Santa Clarita Area Plan Update, 2010

⁷ City General Plan Update, 2010 Page L-68

Second, the City has already shown bad faith with its intention to comply with such policies by the numerous General Plan Amendments it has allowed in the past and by the Commission's recent approval of the 1350 unit Vista Canyon project in a rural area, and in the floodplain and Significant Ecological area overlay portion of the Santa Clara River. Third, weak language throughout the policies and goals such as "encourage", "promote" and, as in the example above "where appropriate" make the goals and policies unenforceable.

15

Recommendations

We believe that this over-stated population projection must be revised downward to conform to reality and the current state of the economy. We also urge the City to re-evaluate these projections based on the REAL census data that will be available later this year. Approvals for unbuilt tracts and specific plans should be allowed to expire so that new approvals will comply with updated laws and address existing needs.

16

The County area is subject to Development Monitoring System (DMS). The DMS is a County General Plan Amendment (SP 86-173) that was authorized by the Board of Supervisors on April 21st, 1987. In fact, our own City General Plan also requires such a document. Policy 1.4⁸ of the Public Facilities Element states:

Using such records as described in Policy 1.3, design and implement a development monitoring system (DMS) to evaluate the individual and cumulative impact of existing and proposed development on the service capacity of public services, facilities, and utilities, and use results from the DMS to mitigate impacts and/or facilitate improvements and development requirements.

17

Beginning in 1996 with a presentation to the City Council, SCOPE has continually urged the City to adopt a DMS ordinance to protect existing residents from inadequate infrastructure planning and ensure that new development pays its own way. The surest way to curb urban sprawl is to not allow new development to foist the costs of expansion onto the taxpayers. We note that this Policy has disappeared from the new City General Plan. Again urge the City to enact a Development Monitoring System for the City area as mitigation for this General Plan update.

Water Supply

The 2005 Urban Water Management Plan is out-dated. New requirements by the legislature were imposed by SBX7 updating disclosure requirements and water conservation goals.

18

The new UWMP for our valley is in process. The City should work with local water agencies to ensure that the most up to date information is included in the OVOV document and incorporate in the plan as a policies and goals all best management practices for water conservation in its document.

Imported Water Supply

One area of general concern is the continued availability of imported state water supplies from the Sacramento Delta. State Water was never meant to be a primary source of supply due to its unreliability. The existing Santa Clarita Area Plan encourages "use of imported water to relieve overdrafted groundwater basins and maintain their safe yield for domestic uses outside of urban areas."⁹ This policy is in line with the primary purpose of State Water supply, i.e. to act as a supplemental water supply to alleviate ground water over draft. It is also confirmed in the

19

⁸ City of Santa Clarita General Plan, Public Facilities Element, page PF-24

⁹ Santa Clarita Valley Areawide Plan, 1984, page 23 Public Services and Facilities Element, Water Supply 1.2

current draft plan on page CO15 which states “CLWA was formed in 1962 for the purpose of contracting with the California Department of Water Resources (DWR) to provide a supplemental supply of imported water to the water purveyors in the Valley.”

However, for some time Santa Clarita Valley residents have in fact consumed more imported state water than local ground water due to housing approvals that have out stripped the capacity of the local aquifers.¹⁰ The statement found in the Plan on page CO15 “Local water retailers currently pump over 50 percent of the domestic water supply from groundwater aquifers.” **is incorrect and does not accurately represent the current situation.**

19

As part of the comprehensive water bill SBX7 (November 2009) the California State Legislature required the development of flow criteria needed to maintain the Sacramento River Delta ecosystem. On August 3, 2010, the State Water Board adopted Resolution 2010-0039 approving the final report¹¹ determining new flow criteria for the Delta ecosystem necessary to protect public trust resources. This information is important to decision makers in Southern California because the flow criteria indicate more water is needed to support a sustainable Delta fishery. This means reduced exports to Southern California.

20

The DEIR contains an extensive discussion of this report beginning at page 3.13-86. Rather than summarize the report and include the report in the Appendices, the consultant spends numerous pages expounding on why, in his opinion, the report’s information is not important. This report, as well as an accurate summary of the information it contains, should be included in the DEIR and in the appendices, made available to the decision makers and circulated to all interested parties to this application. We hereby include it by reference. (see footnote)

Overdraft of the Santa Clara River

Overdraft of the alluvial aquifer has been at issue for many years. While water agencies and other developers such as Newhall Land and Farming argued that the Santa Clara River was not in a state of overdraft, downstream users including United Water Conservation District and Ventura County remain skeptical and concerned. They withdrew their objections only after a Memorandum of Understanding¹² was signed, agreeing to ground water monitoring in which United Water Conservation District would participate.

21

The DEIR does not give an accurate view of the full extent of ground water pumping in the Upper Santa Clara Basin. For example, the ground water pumping chart on page 3.13-34 leaves off pumping by Newhall Land and Farming, and other private users as disclosed in the 2009 Water Supply Report in the appendices. This chart makes it appear that only around 40% of the alluvial aquifer is currently utilized while in fact, the alluvial aquifer is fully utilized. (See ground water production chart – all users 2009 Annual Water Report¹³). Why is this information not in the main body of the document? This information should be included.

The local well owners’ association has long complained that private pumping is underestimated in ground water documents and has expressed concern that the viability of their wells may be affected by additional pumping¹⁴.

22

¹⁰ see 2009 Annual Water Report, page ES-2, Appendix 3.13

¹¹ http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/final_rpt080310.pdf

¹² MOU between the Santa Clarita Water Agencies and United Water Conservation District, August 2001

¹³ Appendix 3.13L

¹⁴ See comment letters, Newhall Ranch Specific Plan and Landmark Village from Santa Clarita Valley Well Owners Association, available in LA County and CLWA files, hereby included in the record and produced upon request.

Further, there is considerable biological evidence that overdraft of the Santa Clara River exists, particularly in the upper reaches. The die back of vegetation away from the center of the streambed in the upper reaches is a prime indication of such overdraft as described in USGS "Sustainability of Ground Water Resources", Circular 1186¹⁵. **No studies exist to evaluate this impact and it is not discussed in the DEIR.**

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Also, no study of subsidence or reductions in water quality, both indications of groundwater overdraft, has ever been conducted for the Upper Santa Clara Basin. These omissions become even more disturbing upon reading in the EIR/EIS for the Newhall Land's Santa Clara River 404 permit (Also produced by Impact Sciences, the same consultant who wrote this EIR):

"Groundwater quality is a key factor in assessing the Alluvial aquifer as a municipal and Agricultural water supply. In terms of the aquifer system, there is no convenient long-term record of water quality, (*i.e.*, water quality data in one or more single wells that spans several decades and continues to the present). Thus, in order to examine a long-term record of water quality in the Alluvium, individual records have been integrated from several wells completed in the same aquifer materials and in close proximity to each other to examine historical trends in general mineral groundwater quality throughout the basin. Based on these records of groundwater quality, wells within the Alluvium have experienced historical fluctuations in general mineral content, as indicated by electrical conductivity (EC), which correlates with fluctuations of individual constituents that contribute to EC. The historic water quality data indicates that, on a long-term basis, there has not been a notable trend and, specifically, there has not been a decline in water quality within the Alluvium.

Specific conductance within the Alluvium exhibits a westward gradient, corresponding with the direction of groundwater flow in the Alluvium. EC is lowest in the easternmost portion of the Basin, and highest in the west. Water quality in the Alluvium generally exhibits an inverse correlation with precipitation and streamflow, with a stronger correlation in the easternmost portion of the Basin, where groundwater levels fluctuate the most. Wet periods have produced substantial recharge of higher quality (low EC) water, and dry periods have resulted in declines in groundwater levels, with a corresponding increase in EC (and individual contributing constituents) in the deeper parts of the Alluvium."¹⁶

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This information was not included in this DEIR, although these facts were well known to this DEIR consultant. Why was it omitted? This statement seems to be saying that everything is fine only as long as past precipitation trends continue, but that drought particularly causes a problem in the eastern portions of the basin. The discussion continues:

"Similar to the Alluvium, groundwater quality in the Saugus Formation is a key factor in assessing that aquifer as a municipal and agricultural water supply. As with groundwater level data, long-term Saugus groundwater quality data is not sufficiently extensive (few wells) to permit any basinwide analysis or assessment of pumping-related impacts on quality. As with the Alluvium, EC has been chosen as an indicator of overall water quality, and records have been combined to produce a long-term depiction of water quality. Water quality in the Saugus Formation has not historically exhibited the precipitation-related fluctuations seen in the Alluvium. Based on the historical record over the last 50 years,

¹⁵ Whole document can be viewed at pubs.usgs.gov/circ/circ1186 Relevant section is "Effects of Ground water Development on Ground water Flow – Streams", see especially pg. 5 of pdf attachment

¹⁶ DEIR/EIS prepared by Impact Sciences for the Santa Clara River Federal 404 permit and State Fish and Game Dept. River Alteration permit, released April 2009, page 4.3-57

groundwater quality in the Saugus has exhibited a slight overall increase in EC. More recently, several wells within the Saugus Formation have exhibited an additional increase in EC similar to that seen in the Alluvium.”¹⁷

This section states that both the Saugus Aquifer and the Alluvial Aquifer are exhibiting some increase in EC indicative of ground water overdraft. There is no discussion of the well-established connectivity of the Alluvial and Saugus aquifers. Since re-charge of the Saugus aquifer depends at least in part of the alluvial aquifer, re-charge to the Saugus will be reduced by over-draft of the alluvium.

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A further indication of potential problems and misinformation is provided by the two citations below from Castaic Lake Water Agency’s (CLWA) submittal to the Dept. of Health Services for permission to put water from the polluted Saugus well filtration process back into the drinking water system after treatment.

CLWA states at page 7 of the Engineering Report Executive Summary¹⁸:

“It should also be noted that, per the 2005 Urban Water Master Plan (UWMP), given a single dry year there would be insufficient capacity from the existing and planned local, wholesale, and banked supplies to meet future needs of CLWA and the other purveyors without incorporating the restoration of Saugus 1 and 2.”

and at page 7-20 of its Engineering Report”

“It should also be noted that, as investigated in the UWMP, all alternative purveyors identified in this assessment are approaching their maximum groundwater withdrawal capacity and, therefore, may not be able to provide supplemental water to the Agency in order to meet their expected demand.”

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Aquifer Protection

We understand that the identification of ground water re-charge areas will be included in the County plan. In keeping with OS Policy 7.5 “Identify and protect ground water recharge areas¹⁹, the City should do the same. Policies ensuring that permeable pavement and other practices for the catchment of stormwater for recharge should be included as goals and policies of the plan. The consistent use of the word “promote” in the Plan policy language is not adequate as planners and commissioners can easily ignore it.

26

The 1991 City Plan (last updated in 1990) has only one other rather weak goal that relates to aquifer protection as follows²⁰:

GOAL 2: To serve and protect the groundwater resources of the Santa Clarita Valley and adjacent drainage areas in a manner which will provide for future use of these resources for domestic and agricultural uses.

The existing County Areawide Plan (last updated in 1990) for the Santa Clarita Valley has several sections that provide strong goals and policies for aquifer protection as follows:

Page 23

Public Services and Facilities Element

¹⁷ *Ibid.*, page 4.3-59-60

¹⁸ DPH Policy Memo 97-005 Compliance Report, Dec. 2009, Black and Vetch Engineering, Document attached

¹⁹ City of Santa Clarita General Plan, Open Space and Conservation Element, Feb. 1999, page OS-35

²⁰ City of Santa Clarita General Plan, Public Facilities Element, Groundwater, page PF-24

Water Supply

1.1 *Develop and use groundwater sources to their safe yield limits, but not to the extent that degradation of the groundwater basins occurs.*

1.2 *Use of imported water to relieve overdrafted groundwater basins and maintain their safe yield for domestic uses outside of urban areas.*

Page 24

Flood control Drainage

3.1 *Use floodways for recreation where feasible. Floodway recreational uses should be limited to those not requiring structures or improvements that could obstruct the natural flow of floodwater.*

Page 25

*Environmental Resources Management Element**Natural Resources*

1.4 *Protect the viability of surface water, since it provides a habitat for fish and other water-related organisms, as well as being an important environmental component for land based plants and animals.*

Page 26

Managed Resource Production

3.1 *Maintain, where feasible, aquifer recharge zones to assure water quality and quantity.*

To ensure protection for this important public resource, the City's Plan should include the above policies.

The DEIR contains no analysis of loss of recharge due to fill and compaction of the flood plains allowed by the plan. Instead the consultant promotes the absurd hypothesis that urban development and hardscaping increases ground water recharge. This concept runs afoul of hundreds of reports produced by agencies from the US EPA and USGS to the Los Angeles and San Gabriel Watershed Council.

The new Plan should include language similar to the above Area Plan policies in order to adequately protect the floodplain, natural waterways and tributaries as well as the Santa Clara River as a means of ensuring the sustainability of our local water supply.

Recommendations for Plan Goals and Policies regarding water supply

We support strong goals and policies for water conservation and efficiency in the plan.

However, we believe that the plan must include the four listed policies above found in the 1984 Areawide Plan. Strong language to protect mapped groundwater recharge areas should also be included so that Santa Clarita communities can move towards Regional water supply reliance as imported water is impacted by efforts to restore the Delta fisheries and climate change.

Water Quality - WasteWater**Chlorides**

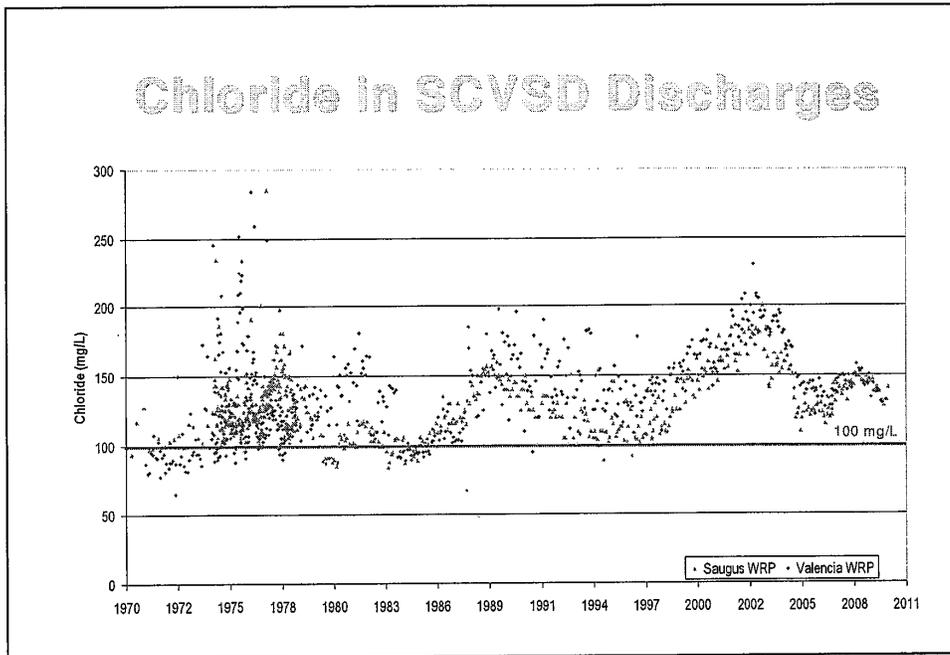
Currently the Sanitation Districts 26 and 32 in the Santa Clarita Valley do not comply with the Clean Water Act Total Maximum Daily Load (TMDL) effluent standard of 100 ugl of Chloride as indicated by the chart below supplied at a recent Sanitation District public hearing:

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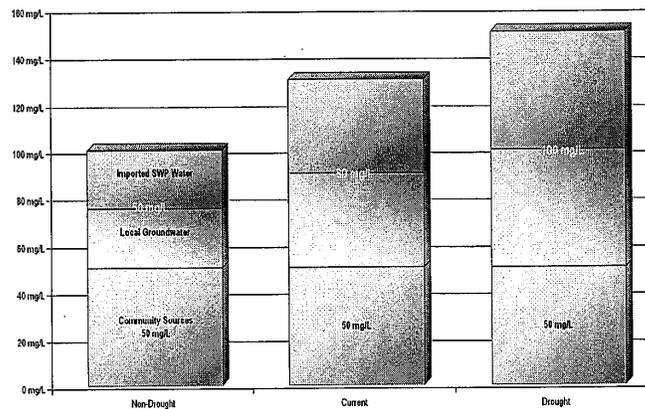
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The Santa Clarita Sanitation Districts' failure to meet the Clean Water TMDL standard for chloride of 100mg/l in the Santa Clara River is a result in part to the sharp and continuing increase in the use of imported State Water Project (SWP) water as seen by the chart below, (from the Sanitation Districts).

Chloride Sources During Drought & Non-Drought Conditions



This problem may be further aggravated by high levels of chlorides found in wells in certain areas of the Santa Clarita Valley used to supply future development. Overdrafting of the groundwater aquifers to supply proposed Plan development will also result in a reduction in water quality as described above under water supply. This fact is also re-enforced by the chloride level chart indicating lower chloride levels during periods of high rainfall in the Santa Clarita Valley as well as increased chloride levels during periods of drought. Thus, there is extensive evidence that the chloride levels in the effluent of the treatment plant will be substantially increased by approval of this Plan.

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While the Plan itself describes this problem, the DEIR fails to accurately disclose the extent of the impact from new building. Thus, the Plan will exacerbate the problem while failing to provide a goal or policy to address it. Further, there is no proposed funding mechanism to pay for the needed improvement upgrades to lower the chloride levels or to pay for the fines that will be imposed if the Sanitation Districts violate the Clean Water Act by not complying with the established Chloride TMDL.

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Recommendations for Plan Goals and Policies regarding Water Quality

- The Plan must include a timeline and funding mechanism to provide compliance with the Clean Water Act TMDL for Chlorides and other pollutants such as bacteria described in the Plan.
- Mitigation measures that require chloride elimination for all future sanitation district connections must be required.
- Funding for upgrades to the Sanitation plants to eliminate chloride from the effluent released to the Santa Clara River must be included in new connection fees.

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Traffic

Under this Plan, traffic will more than double from existing levels to buildout, even with proposed transit oriented density (see Table 3.2-6 p. 3.2-33).

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The County and City must create a long term funding mechanism to be paid by developers for these cumulative impacts as described in the EIR (see EIR p.3.2-61, policy C 2.6.1) prior to approval of this Plan. Such a mechanism would at least provide some assured mitigation for the expected increases, although it would still not be adequate. Without such a funding mechanism, the mitigation will not be forthcoming as required due to lack of funding, thus the mitigation is really not feasible.

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We note that traffic levels will exceed those allowed by the current City General Plan and current Area Plan. We do not believe that it is appropriate to diminish the level of service to D and state that sometimes E and F will be acceptable. In affect, the City is planning to allow gridlock. Resolving traffic issues by merely reducing the service level requirements that are meant to protect the public and analyzing the infrastructure need as though gridlock is the new norm is not an acceptable or legal mitigation for diminishing the traffic impacts.

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The DEIR fails as an informational document

Table 3.2-4, Existing Level of Service Summary – Arterial Roadways, lists the existing ADT volume and corresponding V/C ratio and LOS rating of each study segment.²¹ While this report

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²¹ DEIR Pg.3.2-13

is dated 2010, most of the data is dated between 2005 and 2007, making the information in this report rather out of date given the intensive building in the period prior to 2008. Key roadway segments where extensive building has occurred such as the Old Rd. (segments 239-244) were already at Level D and certainly must have deteriorated even further by this time. Therefore an accurate baseline has not been determined for such key areas.

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The Plan goes on to say that eleven of the arterial roadway segments at Level F are located within the City's Planning Area. "Therefore, no segments within the County's Planning Area operate at LOS F." First, we don't know that to be the case since current data for many of the intersections most likely to reach those levels has not been provided. Second, if this is truly a joint plan, it should not matter whether the LOS F's are in the City or the County, they must be addressed by this Plan.

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Information provided in the following table (3.2-5) is not dated. Again, out of date information will indicate a lower traffic level, so the dates that the intersections were surveyed should be provided.

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On reviewing the Austin-Foust report of existing conditions as compared to OVOV Planned build out, existing conditions are based on year 2004, not 2010 when the Plan was released.²² Up to date information should have been readily available from the City and County planning departments. Since many changes have occurred since 2004, this makes the comparison inaccurate.

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It is also impossible to determine which approved but unbuilt projects have been included in the report. Are these units already included in the 2004 calculations or not? This will make a huge difference in the Plan comparisons, yet the information is not available.

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The data is based on zoning for particular areas, but does not indicate whether it was the low range, mid-range or high range of allowable housing. This could make a substantial difference in the calculation of trip ends. This ambiguity could substantially skew the conclusions presented in the DEIR. Therefore the DEIR must provide a more detailed description of how this information is derived.

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The DEIR states the trip generation will be increased 121% with the OVOV plan over existing levels, which is obviously a significant impact. In an effort to avoid this discussion the document advises:

"Therefore, the more appropriate approach involves comparing the number of trips that would be generated under buildout of the current County Area Plan and City General Plan to the number of trips that would be generated under buildout of the proposed County Area Plan and City General Plan".²³

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When this comparison is made, future buildout of the OVOV plan results in a 3% increase in trip ends over the future buildout of the existing plan. (Table 3.2-7) However, according to the consultant, future vehicle miles traveled will supposedly be less due to the implementation of

²² Austin Foust Report, 2010, Appendix 3.2

²³ DEIR pg. 3.2-33

mitigation. So, in spite of the continued low levels of service indicated by the charts provided in the document, the DEIR now finds “impacts would be less than significant.” (Pg.3.2-63)

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It is obvious that the DEIR has reached this conclusion by first using the wrong baseline. It is well known that in *Save our Peninsula v. Monterey County Board of Supervisors* (2001), 87 Cal.App.4th 99, 125, the Court of Appeal stated:

“Section 15125, subdivision (a), now provides: “An EIR must include a description of the physical environmental conditions in the vicinity of the project , as they exist *at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced. ...This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.*” (Italics added.) Furthermore, the section 15126.2 now provides as follows: “In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced” These amendments reflect and clarify a central concept of CEQA, widely accepted by the courts, that the significance of a project’s impacts cannot be measured unless the EIR first establishes the actual physical conditions on the property. (*County of Amador v. El Dorado County Water District, supra*, 76 Cal.App.4th at p. 953, 91 Cal.Rptr.2d 66; *Environmental Planning & Information Council v. County of Carmel-by-the-Sea v. Board of Supervisors, supra*, 183 Cal.App.3d 229, 227 Cal.Rptr. 899.) In other words, baseline determination is the first rather than the last step in the environmental review process.”

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Instead, the DEIR continues to examine the future traffic impacts of the old plan to the future impacts of the OVOV and concludes that they will be less in spite of an increase in trip ends from 3,207,093 to 3,288,386²⁴ because of the implementation of policy measures to promote non-auto oriented transportation, beginning on page 3.2-60.

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And secondly, the DEIR concludes that these impacts are less than significant because the policies listed in the DEIR will provide mitigation that reduces vehicle miles traveled. However, very few of the policies are actually mandated. Wording employed in the policies such as “consider, evaluate, promote, and where feasible” renders them legally unenforceable.

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In fact, the County and City have removed bike lanes to re-stripe roadways to three lanes for additional development. The bus service is difficult to use because of the infrequency of buses, resulting in long wait times. Metrolink ridership could easily have been evaluated for current usage and to analyze whether an increase has occurred over time, thus providing real trip reduction data. But no such evaluation exists in the DEIR.

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We therefore believe that when the DEIR concludes that the “roadway operations would incrementally improve with implementation of the proposed City General Plan and County Area Plan in place of the current City General Plan and County Area Plan” on page 3.2-42 (thus implying the impact of the new plan is less than significant), and at the same time reaching the

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²⁴ Austin-Foust, 2010, Table 2-4 Page 2-18, DEIR Appendix 3.2

conclusion that traffic impacts from a 121% increase over existing trip generation under the proposed OVOV plan “would be less than significant” (p3.2-63) is patently absurd.

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Consistency

Table 3.2-11 on page 3.2-56 indicates that peak travel levels of service resulting from either Plan will result in deterioration of current levels of service that are not acceptable or consistent with the plan goals and policies. This is true also for congestion at several intersections and on many road segments.

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Such levels of service are also not consistent with the policies of regional plans with which OVOV must comply.

Recommendations for Plan Goals and Policies regarding Traffic

- Include an explanation of the Development Monitoring System in the Plan
- Include strong language requiring formation of funding mechanisms for road improvement so that existing residents do not bear the cost burdens of infrastructure expansion.
- Maintain the LOS C requirements found in the existing City and County Plans.
- Include language that ensures mapped bikeways will not be eliminated by road re-stripping
- Include requirements for feeder transportation to commuter rail and bus stops.

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Air Quality

Per our comments on the traffic section, it appears that the wrong baseline is used for traffic analysis. This being the case, either the air quality analysis must also be incorrect or the traffic and air quality sections are not consistent with each other.

The DEIR used an air quality model called URBEMIS2007. This is a 2007 model and does not include new regulations, such as SB375 and the new Title 24 Building Energy Efficiency Standards. If these rules will be included in project level analysis, they should be included in the modeling. However, air pollution reductions claimed as a result of efficiencies gained through these rules cannot be allowed unless binding legal language to ensure their use is included in the Plan and at the project level.

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The DEIR identifies an increase in selected emissions with the buildout of the OVOV plan. It than states that some emissions would be reduced through the build out of the plan. Such reasoning is illogical and confusing, and is the result of using the wrong baseline as described in the discussion on traffic analysis.

The Santa Clarita Valley is in a non-attainment area for ozone, PM2.5 and PM10 air pollution. In a rating from marginal to extreme, the SCV was rated severe. Approval of the 2007 Air Quality Management Plan allowed local entities to request a “bump up” to the Extreme classification. This “bump-up” applies to ozone only. The category change allowed an extension of time to comply, but required instituting certain mitigation measures and the attainment of “milestones”. We do not see the required mitigation measures in the DEIR. Nor is there a discussion of the milestones that must be reached in order to comply with the 2007 Air Quality Plan. Without compliance, Federal funding for road expansion will be denied.

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It is ironic to have a Plan Policy **Goal CO 7**, “clean air to protect human health and support healthy ecosystems”, while at the same time the County’s member on the Air Board (Antonovich) supported the “bump up” to extreme status for ozone, thus condemning our community to suffer the health problems resulting from exposure to high ozone levels for an extended period of time to 2024.

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The health effects of this pollutant as described on the EPA air quality website are as follows:
Ozone –“ (a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e)Vegetation damage; and (f) Property damage.”

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The attainment date for PM2.5 is much earlier then the 2024 extended date for the ozone extreme designation. The PM2.5 plan, due in 2008, is still being processed with the US EPA.

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Adverse health effects for particulate pollution as described by the EPA website are as follows:

PM10 “(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly”.

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PM2.5 Same as above.

Clean up efforts on the polluted Whittiker Bermite property will add to particulate matter pollution. This impact does not seem to be included in the DEIR. Further, the CEMEX Mine will add substantial particulate matter if mining operations are permitted. Since Congressman McKeon is no longer promoting a bill to stop it, these emissions should be included in the air quality analysis.

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The 42,000 approved but not built units in the City and County Plans will be the main source of this problem. Those units include Newhall Ranch which is the largest urban sprawl area in the state, a leap-frog project that the County approved in violation of its existing anti-leap-frogging plan policy. This Specific Plan also violates the new plan **Policy LU 1.1.3**: “Discourage urban sprawl into rural areas by limiting noncontiguous, “leap-frog” development outside of areas designated for urban use” cited as the means by which air pollution will be reduced. **How can the new Plan make such a claim when the Council ignored the Plan in past approvals and so many specific plans and tracts are already approved but not built that will not meet these goals?**

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Since the DEIR states that impacts to particulate matter will be significant, all sources should be included along with mitigation measures to reduce these problems.

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Based on the thresholds of significance identified in Appendix G of the 2005 *CEQA Guidelines*, a project would have a significant effect on the environment if it would:

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- (a) conflict with or obstruct implementation of the applicable air quality plan;
- (b) violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(c) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
(DEIR page 3.3-34)

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Therefore, the DEIR correctly concludes: "Potential air quality impacts from implementation of the proposed General Plan and Area Plan would remain potentially significant after the implementation of mitigation measures".

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However, the result of this finding of significance is that the Planning Commission and Supervisors routinely approve projects full well knowing that they will not meet air quality standards. Their response is essentially that they cannot do anything about it and the particular project before them will not make any difference.

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Recommendations

- This Plan *may not* be approved without legally binding language requiring all feasible mitigation to reduce air quality impacts. These mitigation requirements must be spelled out specifically and binding language such as "shall use" must be employed to avoid evasive legal maneuvers in the future. Although, "Black box" future unidentified mitigation is allowed under the "bump up" to the extreme ozone pollution category in the Air Plan, it is not be allowed under CEQA.
- Mitigation measures must be identified and enforceable.
- All milestone requirements of the Ozone Reduction Air Plan must be clearly stated. If the milestones are not met, the mitigation measures must be revised accordingly and the General Plan should be re-evaluated.
- The Air Plans for PM 10 and PM 2.5 are over due. This Plan should not be approved until those Plans are completed and appropriate mitigation is incorporated to reduce particulate matter pollution.

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No air quality trading credits should be allowed for the Santa Clarita Valley. Such a trade with Long Beach was already allowed to enable the siting of a polluting power plant in Placerita Canyon. Trades such as this only serves to condemn our community to air pollution and health problems while ensuring that another community receives clean air. A prohibition against the use of air quality credits must be a required mitigation measure.

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Our valley is experiencing substantially increased asthma rates, particularly in children. It is no longer a healthy place for families due to the poor air quality. A Plan that substantially increases housing approvals while failing to address air pollution is condemning the current and future population to expensive and debilitating health problems.

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Global Warming and Climate Change

For some reason, under the Local Activities Section (P. 3.4-33), the DEIR discusses in detail the actions taken by the Los Angeles County Board of Supervisors in adopting the Countywide Energy and Environmental Policy with guidelines for sustainability and green building design, drought tolerant landscape ordinances, and low-impact development. While we hope these policies, ordinances and County initiative are instructive to our City Commissioners and

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Planners, none of these much-needed ordinances have been adopted in the City of Santa Clarita. Since these are obviously feasible mitigation measures, these same requirements must be included in the City's goals and policies as mitigation for all commercial and residential projects.

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The City of Santa Clarita General Plan proposes to increase the amount of residential units and then abate this density by the reduction of units and sprawl in rural areas surrounding the City, i.e., in the County area, in order to meet the objectives of SB 375, the anti-sprawl bill. However, County approved specific plans such as Newhall Ranch and North Lake would already seem to preclude compliance with SB375 when the Valley is considered as a whole.

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While the concepts behind SB375 may eventually provide some relief from traffic and air pollution in more urbanized areas, or in areas without housing approvals that already reach far into the future, it seems an unlikely solution for existing suburbs such as Santa Clarita with its 42,000 units of existing approvals. Further, without stronger, enforceable goals and policies in the City and County Plans and expiration of existing tract maps, the concept of lower County densities and higher City densities is not feasible and will only result in higher densities in both areas.

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In fact, the DEIR unfortunately admits that this is the case. Under the "Significance of Impact Mitigation Framework" the DEIR states that "Based on the above quantitative analysis, the OVOV project could potentially impede or conflict with the State's goal of meeting AB32 given the increase in GHG emissions" and would result in a significant impact on global climate change.²⁵

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It seems that the only way to reduce Green House Gas emissions and clean up our air so people can live in a healthy and safe environment in the Santa Clarita Valley is to reduce the density in both the City of Santa Clarita General Plan and the Los Angeles County Area Plan.

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Recommendations

Require development of a Climate Action Plan *before or concurrently* with this General Plan Update so that its findings and mitigation can be required in the General Plan Goals and Policies and as mitigation in the EIR.

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Biology

Wildlife corridors

Although we continue to assert that the Plan and the EIR require additional mitigation in many areas, including a revision of the population projections, and additional goals and policies, we urge the City, after such revisions, to adopt revised version of alternative 2 as the least environmentally damaging alternative. This alternative would support the wildlife corridors identified in the South Coast Wildlands Missing Linkages report and proposed SEAs (Significant Ecological Areas) by a density reduction.

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Further, we urge the City especially to revise any areas proposed for development within the riparian buffer zone of a creek, stream or river and to develop firm policies to protect these areas.

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²⁵ DEIR 3.4-142

Development within such buffer zones should not be permitted. Preservation of natural watercourses is vital both to wildlife, wildlife movement and the ground water supply of the Santa Clarita Valley.

78

Oaks and Global Warming

Additionally, we believe that the City must analyze and disclose the effects to global warming on the lose of oaks and oak woodlands in the Santa Clarita Valley. CEQA now specifically requires Oak Woodlands to be treated as a significant resource. We have requested cumulative analysis of the extensive destruction of oaks in the SCV for many years. Permitted projects have allowed the destruction of thousands of oaks over the last 20 years. Though some oaks were replaced after the approval of the 1988 County Oak Ordinance and 1992 City Oak Ordinance, many were not replaced or those replacements have since died.

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We believe the extensive lose of these native trees has and will have a large and measurable effect on the absorption of global warming gases. The effect of this loss on GWG is also required to be analyzed. There is no analysis for the lose of oaks or the greenhouse gases that will be generated by this loss.

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Land use changes in this plan will promote additional oak removals. Continued destruction of the trees will add to the increase of global warming. While re-planting may at least provide some mitigation, current requirements do not appear to be sufficient. This effect should be analyzed and disclosed in the Plan and the EIR.

Recommendations

- Permitted oak removals should be discouraged. The City should work with developers to design projects around the oaks instead of allowing removals.
- When removals are permitted, fees should be increased to ensure monitoring of mitigation oaks and replacement of oaks that have died during the mitigation period.
- Mitigation oaks should be monitored for a minimum of five years and replaced within that time if they don't survive.

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Affordable Housing

While areas adequate to meet affordable housing goals have been set aside in Santa Clarita, the development community has not chosen to build housing sufficient to meet the housing needs of very low, low and moderate income earners. Information provided in the City of Santa Clarita's Plan under the affordable housing section states that instead, high income housing exceeds planned requirements by 179% and the requirements for low income housing are meet mostly by providing senior housing developments and are sadly lacking for other social groups.

85

Since teachers and other professionals on whom our community depends to provide the very fabric of our society, require the availability of moderate to low income housing in order to live in the Santa Clarita Valley close to their jobs, this discrepancy must be addressed. We believe that it should be addressed in both City and County areas by requiring inclusionary housing in all planning approvals. Inclusionary housing should be promoted and required as mitigation in the City update.

Conclusion

Since the County and the City Plans will be approved separately, to the extent that one Plan depends on actions or mitigation required in the other Plan, the Plans are not enforceable. For example, should the County agree to a Plan Amendment to increase density in its area, a circumstance that has occurred innumerable times in the past, there is no requirement, (nor any way of enforcing such a requirement, if it did exist), that the City Plan concurrently reduce its density.

86

Further, existing approved Specific Plans including North Lake and Newhall Ranch preclude any possibility of reducing sprawl in County areas. Many of these plans have not yet received tract map approvals or are having financial problems, so the County and City could address this issue

87

by requiring that approvals expire after a certain amount of time. Currently tract maps are routinely granted long extensions.

The City is not acting in good faith to reduce density as witnessed by the recent approval of the 1350 unit Vista Canyon Ranch just outside the eastern border of the City of Santa Clarita. This project will add to traffic and air pollution problems in the Santa Clarita Valley. How will any mitigation measures in the City Plan prevent such land use approvals in the future?

88

The Plan is unenforceable without the use of stronger legal language in the goals and policies. The goals and policies should be re-written using language at least as strong as the language in the current Plan.

89

We will be providing additional comments as the public process continues. Thank you for the opportunity to participate.

90

Sincerely,



Lynne Plambeck
President

Attachments:

1. USGS Circular 1156, Sustainability of Groundwater Resources, section on "Effects of Ground water Development on Ground water Flow – Streams", 1999
2. Castaic Lake Water Agency DPH Policy Memo 97-005 Compliance Report, Black and Vetch Engineering, Dec. 2009



EFFECTS OF GROUND-WATER DEVELOPMENT ON GROUND-WATER FLOW TO AND FROM SURFACE- WATER BODIES

As development of land and water resources intensifies, it is increasingly apparent that development of either ground water or surface water affects the other (Winter and others, 1998). Some particular aspects of the interaction of ground water and surface water that affect the sustainable development of ground-water systems are discussed below for various types of surface-water features.

As development of land and water resources intensifies, it is increasingly apparent that development of either ground water or surface water affects the other.

Streams

Streams either gain water from inflow of ground water (gaining stream; Figure 12A) or lose water by outflow to ground water (losing stream; Figure 12B). Many streams do both, gaining in some reaches and losing in other reaches. Furthermore, the flow directions between ground water and surface water can change seasonally as the altitude of the ground-water table changes with respect to the stream-surface altitude or can change over shorter timeframes when rises in stream surfaces during storms cause recharge to the streambank. Under natural conditions, ground water makes some contribution to streamflow in most physiographic and climatic settings. Thus, even in settings where streams are primarily losing water to ground water, certain reaches may receive ground-water inflow during some seasons.

Losing streams can be connected to the ground-water system by a continuous saturated zone (Figure 12B) or can be disconnected from the ground-water system by an unsaturated zone (Figure 12C). An important feature of streams that are disconnected from ground water is that pumping of ground water near the stream does not affect the flow of the stream near the pumped well.

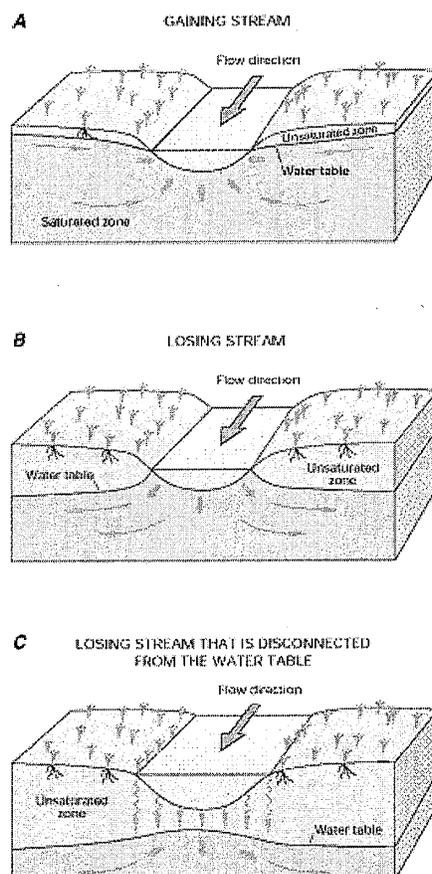


Figure 12. Interaction of streams and ground water. (Modified from Winter and others, 1998.)

Gaining streams (A) receive water from the ground-water system, whereas losing streams (B) lose water to the ground-water system. For ground water to discharge to a stream channel, the altitude of the water table in the vicinity of the stream must be higher than the altitude of the stream-water surface. Conversely, for surface water to seep to ground water, the altitude of the water table in the vicinity of the stream must be lower than the altitude of the stream surface. Some losing streams (C) are separated from the saturated ground-water system by an unsaturated zone.

A pumping well can change the quantity and direction of flow between an aquifer and stream in response to different rates of pumping. Figure 13 illustrates a simple case in which equilibrium is attained for a hypothetical stream-aquifer system and a single pumping well. The adjustments to pumping of an actual hydrologic system may take place over many years, depending upon the physical characteristics of the aquifer, degree of hydraulic connection between the stream and aquifer, and locations and pumping history of wells. Reductions of streamflow as a result of ground-water pumping are likely to be of greatest concern during periods of low flow, particularly when the reliability of surface-water supplies is threatened during droughts.

At the start of pumping, 100 percent of the water supplied to a well comes from ground-water storage. Over time, the dominant source of water to a well, particularly wells that are completed in an unconfined aquifer, commonly changes from ground-water storage to surface water. The surface-water source for purposes of discussion here is a stream, but it may be another

surface-water body such as a lake or wetland. The source of water to a well from a stream can be either decreased discharge to the stream or increased recharge from the stream to the ground-water system. The streamflow reduction in either case is referred to as streamflow capture.

In the long term, the cumulative stream-flow capture for many ground-water systems can approach the quantity of water pumped from the ground-water system. This is illustrated in Figure 14, which shows the time-varying percentage of ground-water pumpage derived from ground-water storage and the percentage derived from streamflow capture for the hypothetical stream-aquifer system shown in Figure 13. The time for the change from the dominance of withdrawal from ground-water storage to the dominance of streamflow capture can range from weeks to years to decades or longer.

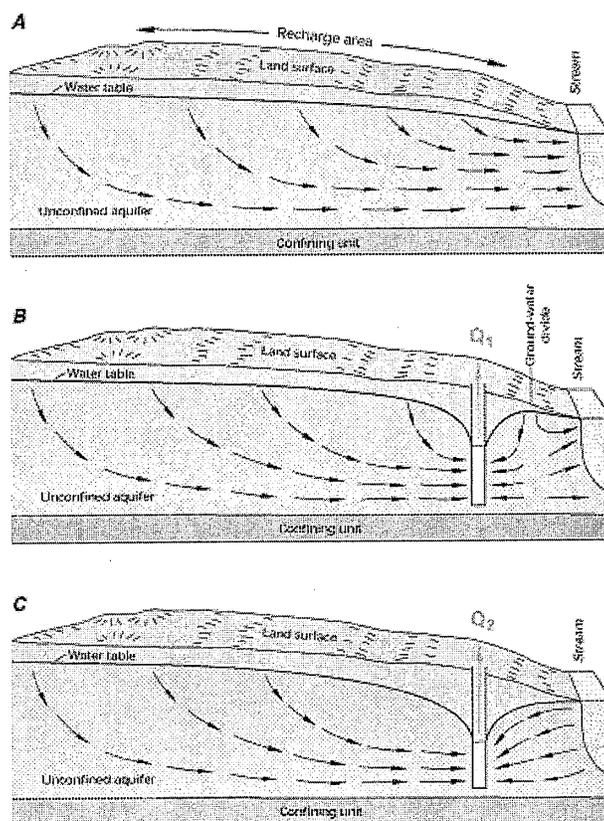


Figure 13. Effects of pumping from a hypothetical ground-water system that discharges to a stream. (Modified from Heath, 1983.)

Under natural conditions (A), recharge at the water table is equal to ground-water discharge to the stream. Assume a well is installed and is pumped continuously at a rate, Q_1 , as in (B). After a new state of dynamic equilibrium is achieved, inflow to the ground-water system from recharge will equal outflow to the stream plus the withdrawal from the well. In this new equilibrium, some of the ground water that would have discharged to the stream is intercepted by the well, and a ground-water divide, which is a line separating directions of flow, is established locally between the well and the stream. If the well is pumped at a higher rate, Q_2 , a different equilibrium is reached, as shown in (C). Under this condition, the ground-water divide between the well and the stream is no longer present, and withdrawals from the well induce movement of water from the stream into the aquifer. Thus, pumping reverses the hydrologic

condition of the stream in this reach from ground-water discharge to ground-water recharge. Note that in the hydrologic system depicted in (A) and (B), the quality of the stream water generally will have little effect on the quality of ground water. In the case of the well pumping at the higher rate in (C), however, the quality of the stream water can affect the quality of ground water between the well and the stream, as well as the quality of the water withdrawn from the well. Although a stream is used in this example, the general concepts apply to all surface-water bodies, including lakes, reservoirs, wetlands, and estuaries.

From a sustainability perspective, the key point is that pumping decisions today will affect surface-water availability; however, these effects may not be fully realized for many years.

Most ground-water development is much more complex than implied in Figure 13; for example, it may comprise many wells pumping from an aquifer at varying pumping rates and at different locations within the ground-water-flow system. Computer models commonly are needed to evaluate the time scale and time-varying response of surface-water bodies to such complex patterns of ground-water development. From a sustainability perspective, the key point is that pumping decisions today will affect surface-water availability; however, these effects may not be fully realized for many years.

The eventual reduction in surface-water supply as a result of ground-water development complicates the administration of water rights. Traditionally, water laws did not recognize the physical connection of ground water and surface water. Today, in parts of the Western United States, ground-water development and use are restricted because of their effects on surface-water rights. Accounting for the effects of ground-water development on surface-water rights can be difficult. For example, in the case of water withdrawn to irrigate a field, some of the water will be lost from the local hydrologic system due to evaporation and use by crops, while some may percolate to the ground-water system and ultimately be returned to the stream. Related questions that arise include: how much surface water will be captured, which surface-water bodies will be affected, and over what period will the effects occur? Some of these issues are illustrated further in Box C.

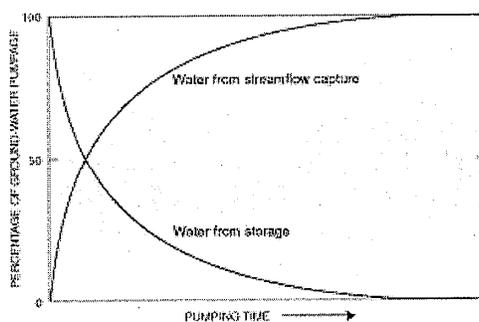


Figure 14. The principal source of water to a well can change with time from ground-water storage to capture of streamflow.

The percentage of ground-water pumpage derived from ground-water storage and capture of streamflow (decrease in ground-water discharge to the stream or increase in ground-water recharge

from the stream) is shown as a function of time for the hypothetical stream-aquifer system shown in Figure 13. A constant pumping rate of the well is assumed. For this simple system, water derived from storage plus streamflow capture must equal 100 percent. The time scale of the curves shown depends on the hydraulic characteristics of the aquifer and the distance of the well from the stream.

Ground-water pumping can affect not only water supply for human consumption but also the maintenance of instream-flow requirements for fish habitat and other environmental needs. Long-term reductions in streamflow can affect vegetation along streams (riparian zones) that serve critical roles in maintaining wildlife habitat and in enhancing the quality of surface water. Pumping-induced changes in the flow direction to and from streams may affect temperature, oxygen levels, and nutrient concentrations in the stream, which may in turn affect aquatic life in the stream.



Perennial streams, springs, and wetlands in the Southwestern United States are highly valued as a source of water for humans and for the plant and animal species they support. Development of ground-water resources since the late 1800's has resulted in the elimination or alteration of many perennial stream reaches, wetlands, and associated riparian ecosystems. As an example, a 1942 photograph of a reach of the Santa Cruz River south of Tucson, Ariz., at Martinez Hill shows stands of mesquite and cottonwood trees along the river (1st photograph). A replicate photograph of the same site in 1989 shows that the riparian trees have largely disappeared (right photograph). Data from two nearby wells indicate that the water table has

declined more than 100 feet due to pumping, and this pumping appears to be the principal reason for the decrease in vegetation. (Photographs provided by Robert H. Webb, U.S. Geological Survey.)

In gaining and in losing streams, water and dissolved chemicals can move repeatedly over short distances between the stream and the shallow subsurface below the streambed. The resulting subsurface environments, which contain variable proportions of water from ground water and surface water, are referred to as hyporheic zones (see Figure 15). Hyporheic zones can be active sites for aquatic life. For example, the spawning success of fish may be greater where flow from the stream brings oxygen into contact with eggs that were deposited within the coarse bottom sediment or where stream temperatures are modulated by ground-water inflow. The effects of ground-water pumping on hyporheic zones and the resulting effects on aquatic life are not well known.

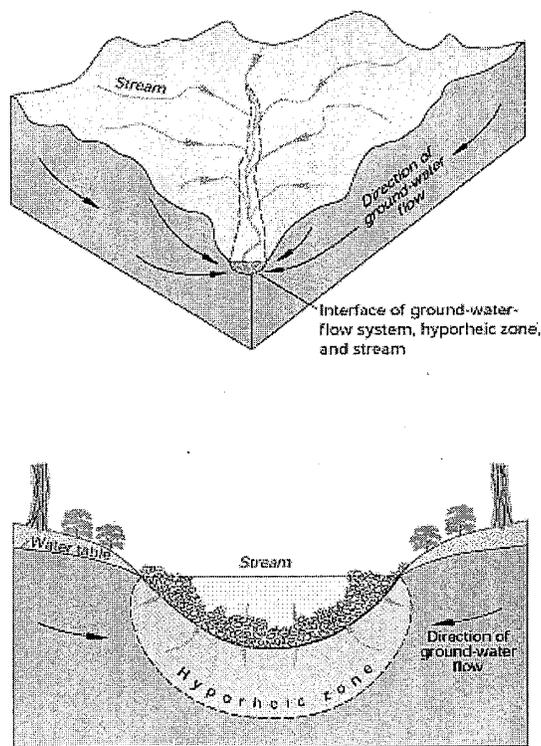


Figure 15. The dynamic interface between ground water and streams. (Modified from Winter and others, 1998.)

Streambeds are unique environments where ground water that drains much of the subsurface of landscapes interacts with surface water that drains much of the surface of landscapes. Mixing of surface water and ground water takes place in the hyporheic zone where microbial activity and chemical transformations commonly are enhanced.

(BOX C)**Lakes**

Lakes, both natural and human made, are present in many different parts of the landscape and can have complex ground-water-flow systems associated with them. Lakes interact with ground water in one of three basic ways: some receive ground-water inflow throughout their entire bed; some have seepage loss to ground water throughout their entire bed; and others, perhaps most lakes, receive ground-water inflow through part of their bed and have seepage loss to ground water through other parts. Lowering of lake levels as a result of ground-water pumping can affect the ecosystems supported by the lake (Figure 16), diminish lakefront esthetics, and have negative effects on shoreline structures such as docks.

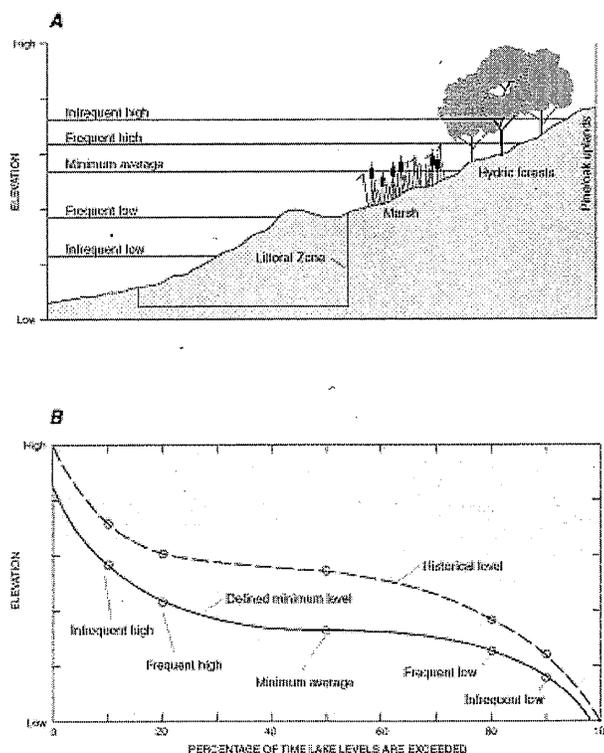
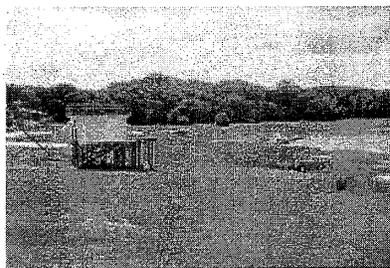


Figure 16. Setting minimum water levels in Florida lakes. (Modified from McGrail and others, 1998.)

As part of efforts to prevent significant undesirable environmental consequences from water-resources development, water-management agencies in Florida are defining minimum flows and water levels for priority surface waters and aquifers in the State. For lakes, the minimum flows and water levels describe a hydrologic regime that is less than the historical or optimal one but allows for prudent water use while protecting critical lake functions. As an example, five possible minimum water levels defined for a lake are shown in A. An elevation and a percentage of time the level is exceeded characterize each of these levels. The upper curve in B shows the percentage of the time that the lake is historically above each corresponding level. The goal is to ensure that water withdrawals and other water-resource management actions continue to allow the lake water levels to be at or above the minimum levels shown by the lower curve in B for the percentage of time shown.



Dock on Crooked Lake in central Florida in the 1970's.



The same dock in 1990.

As a result of very low topographic relief, high rainfall, and a karst terrain, the Florida landscape is characterized by numerous lakes and wetland areas. The underlying Floridan aquifer is one of the most extensive and productive aquifers in the world. Over the past two decades, lake levels declined and wetlands dried out in highly developed west-central Florida as a result of both extensive pumping and low precipitation during these years. Differentiating between the effects of the drought and pumping has been difficult. (Photographs courtesy of Florida Water Resources Journal, August, 1990 issue.)

The chemistry of ground water and the direction and magnitude of exchange with surface water significantly affect the input of dissolved chemicals to lakes. In fact, ground water can be the principal source of dissolved chemicals to a lake, even in cases where ground-water discharge is a small component of a lake's water budget. Changes in flow patterns to lakes as a result of pumping may alter the natural fluxes to lakes of key constituents such as nutrients and dissolved oxygen, in turn altering lake biota, their environment, and the interaction of both.

Wetlands

Wetlands are present wherever topography and climate favor the accumulation or retention of water on the landscape. Wetlands occur in widely diverse settings from coastal margins to flood plains to mountain valleys. Similar to streams and lakes, wetlands can receive ground-water inflow, recharge ground water, or do both. Wetlands are in many respects ground-water features.

Public and scientific views of wetlands have changed greatly over time. Only a few decades ago, wetlands generally were considered to be of little or no value. It is now recognized that wetlands have beneficial functions such as wildlife habitat, floodwater retention, protection of the land from erosion, shoreline protection in coastal areas, and water-quality improvement by

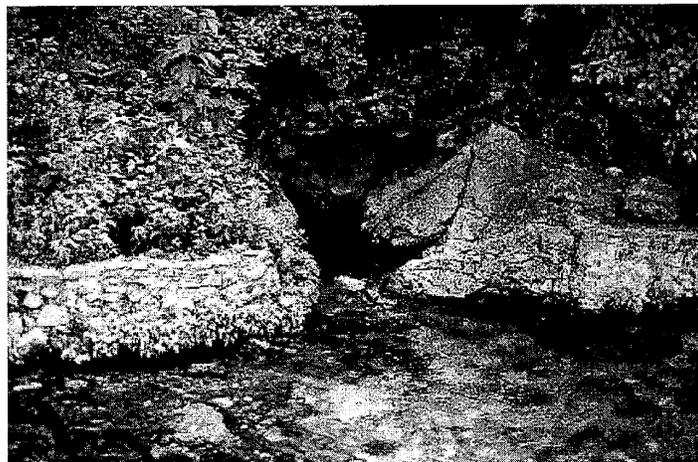
filtering of contaminants.

The persistence, size, and function of wetlands are controlled by hydrologic processes (Carter, 1996). For example, the persistence of wetness for many wetlands is dependent on a relatively stable influx of ground water throughout changing seasonal and annual climatic cycles. Characterizing ground-water discharge to wetlands and its relation to environmental factors such as moisture content and chemistry in the root zone of wetland plants is a critical but difficult to characterize aspect of wetlands hydrology (Hunt and others, 1999).

Wetlands can be quite sensitive to the effects of ground-water pumping. Ground-water pumping can affect wetlands not only as a result of progressive lowering of the water table, but also by increased seasonal changes in the altitude of the water table. The amplitude and frequency of water-level fluctuations through changing seasons, commonly termed the hydroperiod, affect wetland characteristics such as the type of vegetation, nutrient cycling, and the type of invertebrates, fish, and bird species present. The effects on the wetland environment from changes to the hydroperiod may depend greatly on the time of year at which the effects occur. For example, lower than usual water levels during the nongrowing season might be expected to have less effect on the vegetation than similar water-level changes during the growing season. The effects of pumping on seasonal fluctuations in ground-water levels near wetlands add a new dimension to the usual concerns about sustainable development that typically focus on annual withdrawals (Bacchus, 1998).

Springs

Springs typically are present where the water table intersects the land surface. Springs serve as important sources of water to streams and other surface-water features, as well as being important cultural and esthetic features in themselves. The constant source of water at springs leads to the abundant growth of plants and, many times, to unique habitats. Ground-water development can lead to reductions in springflow, changes of springs from perennial to ephemeral, or elimination of springs altogether. Springs typically represent points on the landscape where ground-water-flow paths from different sources converge. Ground-water development may affect the amount of flow from these different sources to varying extents, thus affecting the resultant chemical composition of the spring water.



Comal Springs

The highly productive Edwards aquifer, the first aquifer to be designated as a sole source aquifer under the Safe Drinking Water Act, is the source of water for more than 1 million people in San Antonio, Texas, some military bases and small towns, and for south-central Texas farmers and ranchers. The aquifer also supplies water to sustain threatened and endangered species habitat associated with natural springs in the region and supplies surface water to users downstream from the major springs. These various uses are in direct competition with ground-water development and have created challenging issues of ground-water management in the region. (Photograph by Robert Morris, U.S. Geological Survey.)

Coastal Environments

Coastal areas are a highly dynamic interface between the continents and the ocean. The physical and chemical processes in these areas are quite complex and commonly are poorly understood. Historically, concern about ground water in coastal regions has focused on seawater intrusion into coastal aquifers, as discussed in a later chapter of this report. More recently, ground water has been recognized as an important contributor of nutrients and contaminants to coastal waters. Likewise, plant and wildlife communities adapted to particular environmental conditions in coastal areas can be affected by changes in the flow and quality of ground-water discharges to the marine environment.

In summary, we have seen that changes to surface-water bodies in response to ground-water pumping commonly are subtle and may occur over long periods of time. The cumulative effects of pumping can cause significant and unanticipated consequences when not properly considered in water-management plans. The types of water bodies that can be affected are highly varied, as are the potential effects.

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EXECUTIVE SUMMARY

Castaic Lake Water Agency (CLWA) authorized Black & Veatch to perform the investigations and analyses required for compliance with California Department of Public Health (DPH) Policy Memo 97-005 for Direct Domestic Use of Extremely Impaired Sources.

State policy recognizes that impaired supplies represent important long-term resources, and 97-005 sets the framework within which impaired supplies can be evaluated for potential treatment and beneficial reuse. This Engineering Report presents the results of the compliance evaluation. The project components included under this evaluation are groundwater wells, a water treatment facility, and appurtenant facilities. The water source would be Santa Clarita Water Division (SCWD) Saugus Wells 1 and 2 and the completed project would have a capacity of about 2,400 gallons per minute (gpm).

PROJECT BACKGROUND

In 1997, two Saugus Formation production wells owned by the SCWD (Saugus Wells 1 and 2), one Saugus Formation production well owned by the Newhall County Water District (NCWD) (well NC-11), and one Saugus Formation production well owned by Valencia Water Company (VWC) (well VWC-157) were shut down because perchlorate was detected in groundwater at these wells. In 2002, an Alluvial Aquifer production well owned by SCWD (well SCWD-Stadium) was shut down because of a perchlorate detection. At each of the five production wells, the detected perchlorate concentrations exceeded the State of California's Notification Level (NL) for perchlorate of 6 micrograms per liter ($\mu\text{g/L}$) at the time of the detection.

Together, the four impacted production wells in the Saugus Formation pumped between 1,900 and 6,800 acre-feet per year (AF/yr) during the early and mid-1990s, prior to being shut down. Returning perchlorate-impacted production wells to service with treatment requires the issuance of a DPH permit before the water can serve as a potable water supply. Before issuing a permit, DPH requires that formal studies and engineering work be performed to demonstrate that pumping these wells and treating the water will be protective of human health for the users of the water.

The project included an in-depth review of the water quality of these wells and developed treatment alternatives based on its water quality. The key project objectives are to:

- ▼ Satisfy the DPH Policy Memo 97-005 requirements for evaluating impaired or extremely impaired water for use as a drinking water source.
- ▼ Complete an evaluation of water quality and develop treatment methods.
- ▼ Obtain DPH permits for direct domestic use of the treated Saugus 1 and 2 groundwater.
- ▼ Develop a recommended project that would meet California Environmental Quality Act (CEQA) guidelines and that would receive DPH approval for beneficial use.





This Engineering Report describes the results of the following key tasks: source water assessment; raw water quality characterization; source protection plan development; monitoring and treatment; health risk assessment; and a source alternatives evaluation. Other project tasks, described in separate documents, are CEQA review, permit application, and public hearing support and response.

SOURCE WATER ASSESSMENT

The purpose of the source water assessment is to determine the extent to which the aquifer or surface water is vulnerable to contaminating activities in the area. The source water assessment completed for the Agency began with a review of the water quality data from the Saugus 1 and Saugus 2 wells, which identified perchlorate as the key contaminant of concern.

Following the water quality review, two, five, ten, and twenty year capture zones were delineated using a regional groundwater flow model constructed and calibrated for the entire Santa Clarita Valley (see Figure ES-1). MicroFEM, a finite-element program for multiple-aquifer steady-state and transient groundwater flow modeling was used. Known contamination sources in the area were identified using multiple state and federal databases, review of Regional Water Quality Control Board (RWQCB) records, and field assessment. Following identification of the contaminant sources, a vulnerability analysis was performed to determine to which sources of contamination the wells are most vulnerable. Regarding activities associated with contaminants detected in the water supply, the source water is considered most vulnerable to known contaminant plumes, specifically the plume associated with the Whittaker–Bermite military munitions and equipment site. Previous owners at the site produced munitions and explosives.

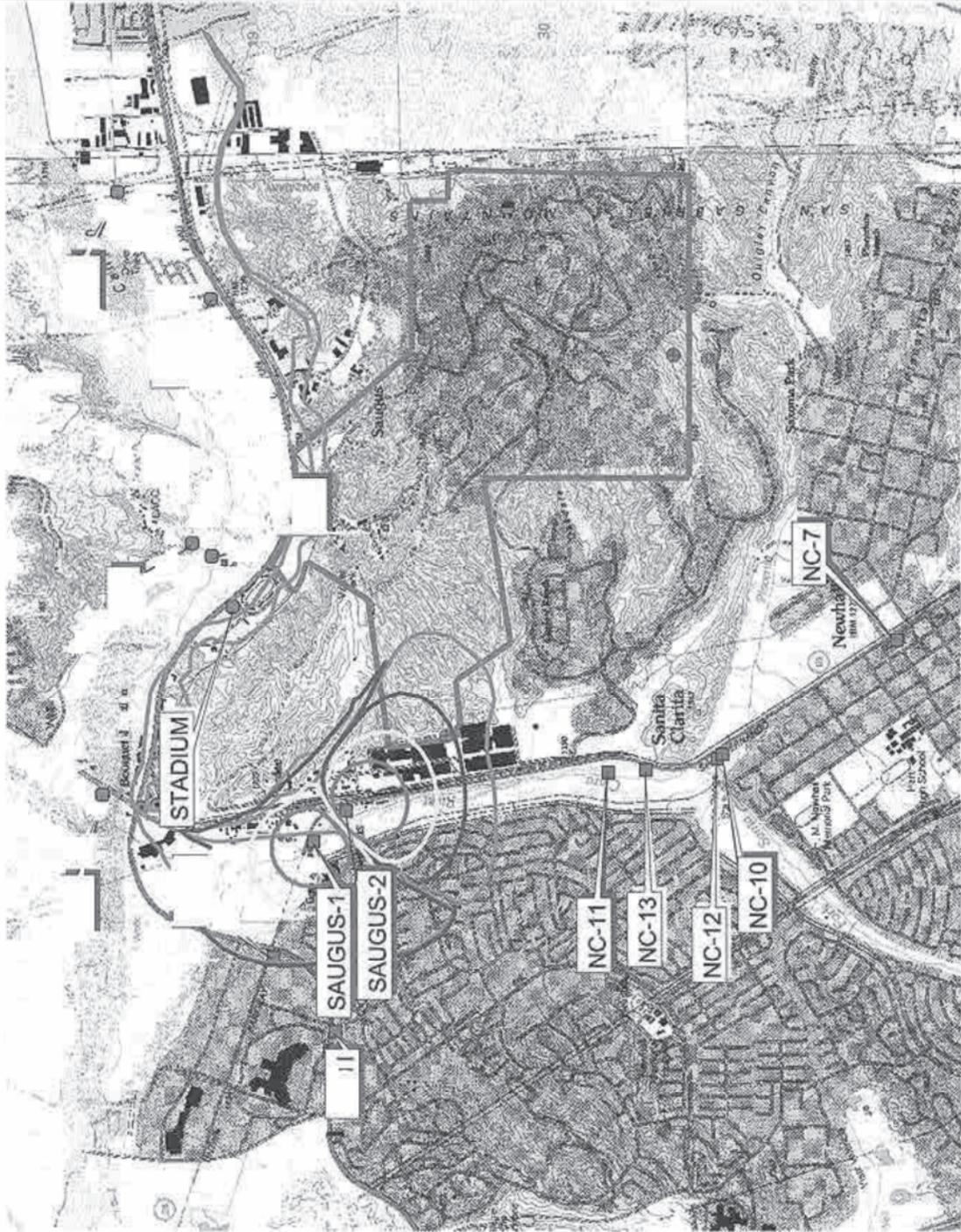
The source water is also considered vulnerable to the following activities not associated with any detected contaminants: automobile-gas stations, historic gas stations, chemical/petroleum processing/storage, metal plating/ finishing/fabricating, and plastics/synthetics producers.

RAW WATER QUALITY CHARACTERIZATION

The raw water quality characterization included water quality tests conducted on two contaminated Saugus Formation wells, Saugus 1 and Saugus 2. Wellhead samples were collected between January and June 2003, and the results of the analysis were used to develop the water treatment strategy required to use this water as a potable source.

In order to validate the water quality data, the study team also reviewed historical data indicative of water quality in the wells prior to well shutdown as well as current water quality data collected from monitoring wells in the area. These wells were installed as part of a conceptual hydrology study conducted by the United States Army Corps of Engineers (USACE) in compliance with Department of Toxic Substances Control (DTSC) oversight.







The water from the Saugus 1 and Saugus 2 can be characterized as moderately buffered, hard water with moderate concentrations of dissolved oxygen and total dissolved solids. Perchlorate was observed to exceed the Maximum Contaminant Level (MCL) of 6 parts per billion (ppb) with a maximum concentration of 60 ppb. No other contaminant consistently exceeded its drinking water standard.

Levels of TCE above the MCL were detected at monitoring wells MP-2, MP-3, and SS-1 within the Whittaker Bermite site and at MP-5 north of the Saugus wells (USACE). Historic and recent data indicate that this contaminant is not of concern at this time. The locations of the wells where TCE has been detected above limits are estimated to be outside the 50 year capture zones of both Saugus 1 and Saugus 2.

Explosives and N-nitrosodimethylamine (NDMA) were not detected in the raw waters sampled.

SOURCE PROTECTION PLAN DEVELOPMENT

If the use of any extremely impaired source is to be approved, the source of the contamination must be controlled to prevent the level of contamination from rising and to minimize the dependence on treatment. An effective source protection program must consider both short term and long term measures and must involve a variety of stakeholders.

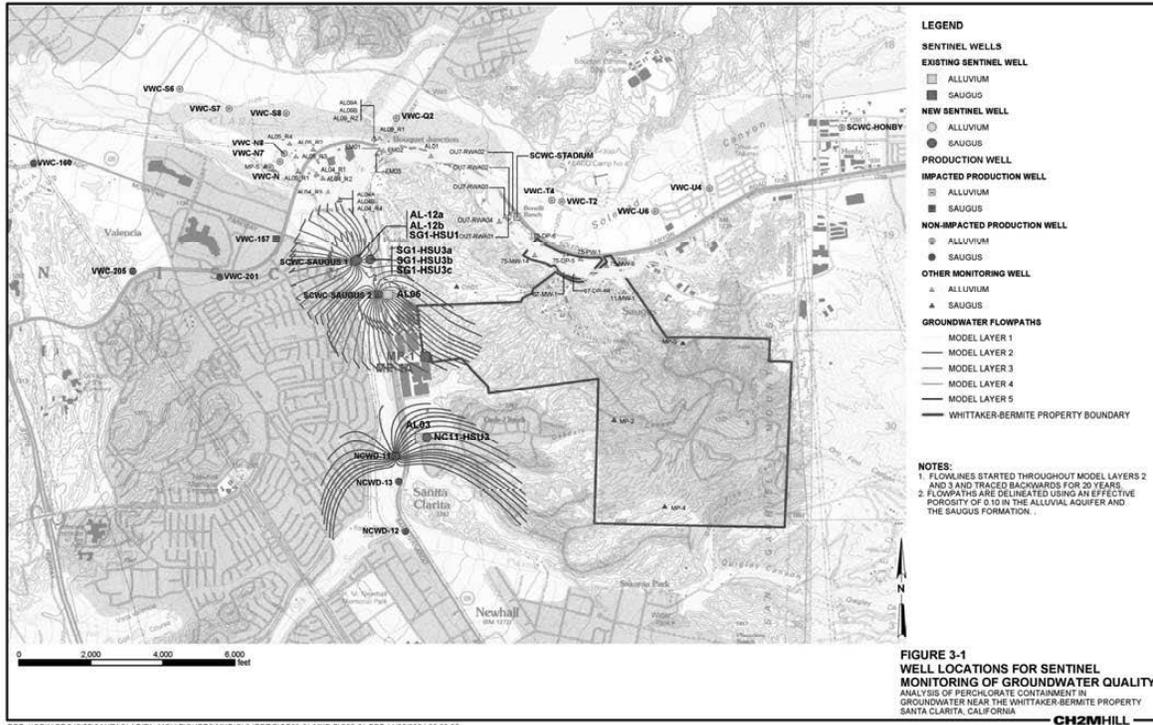
The perchlorate management plan consists of three key elements:

1. Pumping from Saugus 1 and Saugus 2 to contain perchlorate, treating the water, and entering the potable water conveyance system.
2. Sentinel monitoring to provide early warning of any changes that might occur in groundwater quality upgradient of the containment wells as shown in Figure ES-2. The program would focus primarily on monitoring for perchlorate, volatile organic compounds (VOCs), nitrate, and sulfate, which are the constituents most likely to affect the treatment system if present at concentrations greater than those observed to date. General minerals would be sampled on a biannual basis. Early detection will allow modification to the treatment facilities to accommodate any changes in water quality.
3. Remediating the Bermite site to reduce perchlorate in groundwater to below the current detection limit and reduce VOCs in groundwater to the most sensitive risk-based cleanup goals.





Figure ES-2 - Well Locations for Sentinel Monitoring of Groundwater Quality



MONITORING AND TREATMENT

DPH Policy Memo 97-005 establishes guidelines for treatment of extremely impaired sources. As a minimum, the treatment should include the Best Available Technology (BAT) for treatment of the contaminant as defined by the U.S. Environmental Protection Agency (USEPA). To date the BATs for perchlorate removal have not been published. However, for nitrate, the BATs listed are Reverse Osmosis (RO), Electrodialysis Reversal (EDR), and Ion Exchange (IX). On this basis four groups of process alternatives were reviewed for treatment of perchlorate, including: biological, Granular Activated Carbon (GAC), IX, and membranes.

The preferred technology is IX using a pilot tested, National Sanitary Foundation (NSF)-approved, non-regenerable IX resin. The suggested operating conditions provided by U.S. Filter (now known as Siemens) include a minimum bed depth of 24 inches and a service flow rate of 5 to 10 gallons per minute per square foot (gpm/ft²). This, single-use, IX process would consist of pressurized feed water being passed through a series of pressure vessels, in lead-lag configuration, holding a packed resin bed that selectively would remove perchlorate and exchange it for chloride.





The treatment site has been designed to provide an additional potable water source to meet all current and future water needs and removal requirements. Each vessel has been designed to treat the entire design capacity with effluent concentrations less than 2 ppb. Furthermore, although unlikely, if raw water concentrations exceed the design basis of 47 ppb plus 25 percent (equaling approximately 59 ppb), the selected IX resin will still reduce perchlorate concentrations below detection levels with only a slight, if any, reduction in resin life. The treated water would be blended with treated water from the Agency's Rio Vista Water Treatment Plant (RVWTP) and Earl Schmidt Filtration Plant (ESFP) prior to entering the distribution system. In addition, although trichloroethylene (TCE) and tetrachloroethylene (PCE) are currently non-detect in the Saugus Wells, the site could accommodate future VOC removal facilities, if required. The recommended technology for this treatment is GAC, and the estimated footprint required would be 800 sq.ft.

RISK ASSESSMENT

A risk assessment was performed to evaluate the potential for treatment failure, to define the potential for adverse health effects in the event of failure and to ensure that all treatment safeguards are in place to protect public health. The characterization considered risk related to carcinogens and non-carcinogens for the perchlorate-contaminated Saugus Wells intended for use as a new water source.

A conservative estimate on frequency of treatment failure was defined as part of the short-term failure analysis. As stated above, the water treatment processes intended for use for the Saugus Formation Wells have been designed to prevent treatment failure. In addition, automated controls will be in place to facilitate plant shutdown in the event that water quality requirements are not met. A 24-hour manned operation will ensure that alarms indicating well pump or equipment failure are acted upon. Sampling will be carried out on influent daily and the lead and lag vessels on a daily and weekly basis respectively until the life of the resin has been verified on the full-scale basis. Sampling will then proceed in accordance with the permit issued by DPH to ensure treated water quality. A one-day-a-year failure represents a conservative, worst-case failure scenario; all maximum safeguards and redundancies are in place to protect against human health risk. If a complete power failure at the treatment site were to occur, perchlorate could reach the distribution system at levels above its MCL. However, blending would reduce the perchlorate levels back down to below the MCL and further reduce the potential human health risks of this unlikely event.

The impacts of both short term treatment failure and long-term operations were assessed. In both cases, perchlorate was identified as the only contaminant of potential concern (COPC) i.e., the only contaminant of interest that exceeded a screening level and requiring risk assessment. Furthermore, both assessments confirmed that any treatment failure would present little or no risk to human health.





SOURCE WATER ALTERNATIVES

DPH Policy Memo 97-005 requires the evaluation of alternative sources of supply during the permitting process of an extremely impaired source. The human health risks of all sources must be compared and evaluated. The alternative sources evaluation for Saugus 1 and Saugus 2 considered the availability of other potential sources in the area and compared the potential health risks associated with these alternatives. Four other water agencies were identified as having sources in the region regardless of availability.

A list of contaminants of interest was developed from the possible source water contaminants and from the contaminants of interest identified in the raw water quality characterization. For each source, the contaminant concentrations were “screened” against the California and Federal MCLs. Contaminants that exceeded these screening levels were considered to be COPCs and required further evaluation as part of the Risk Assessment.

The conservative risk characterization of these water sources showed that the Saugus Formation Wells and the alternative sources presented minimal risk to human health. Furthermore, the assessment showed that the quality of drinking water to be provided by the Saugus Wells Treatment Facility, inclusive of treatment failure, met or exceeded that of any of the alternative sources.

It should also be noted that, per the 2005 Urban Water Master Plan (UWMP), given a single dry year there would be insufficient capacity from the existing and planned local, wholesale, and banked supplies to meet future needs of CLWA and the other purveyors without incorporating the restoration of Saugus 1 and 2. The introduction of the Saugus Formation wells in combination with conservation of non-essential demand would restore local water supplies that are necessary and planned to meet long-term water demand projections contained in the UWMP.





1.0 INTRODUCTION

This Engineering Report, prepared by Black & Veatch for the Castaic Lake Water Agency (CLWA, Agency), describes how the Santa Clarita Water Division (SCWD) Saugus Wells 1 and 2 may be put back in service to restore production and to contain the perchlorate plume which forced the water purveyors to shut down the wells. Steps taken to achieve this include extensive analysis of water quality, groundwater modeling, treatment options, and risk assessment in compliance with the California Department of Public Health (DPH) Policy Memo 97-005 for Direct Domestic Use of Extremely Impaired Sources. The following chapters describe the protection measures that have been and will be taken to capture, treat, and distribute the water so it will be protective of human health.

1.1 Background

In 1997, two Saugus Formation production wells owned by the SCWD (wells SCWD-Saugus 1 and SCWD-Saugus 2), one Saugus Formation production well owned by the Newhall County Water District (NCWD) (well NCWD-11), and one Saugus Formation production well owned by Valencia Water Company (VWC) (well VWC-157) were shut down because perchlorate was detected in groundwater at these wells. In 2002, an Alluvial Aquifer production well owned by SCWD (well SCWD-Stadium) was shut down because of a perchlorate detection. The project area indicating the locations of the five impacted production wells and nearby non-impacted production wells are shown on Figure ES-2 along with the locations of sentinel and other monitoring wells that have been installed to investigate the extent of perchlorate contamination. At each of the five production wells, the detected perchlorate concentrations exceeded the State of California's Maximum Contaminant Level (MCL) for perchlorate of 6 micrograms per liter ($\mu\text{g/L}$) at the time of the detection.

Together, the four impacted production wells in the Saugus Formation pumped between 1,900 and 6,800 acre-feet per year (AF/yr) during the early and mid-1990s, prior to being shut down. The average pumping from these four wells was 4,186 AF/yr from 1991 through 1996, the 6 years preceding the perchlorate detections. The four wells have a combined instantaneous pumping capacity of 7,900 gallons per minute (gpm). The Purveyors plan to return two of the four impacted Saugus Formation production wells to service (SCWD-Saugus 1, SCWD-Saugus 2) and to replace NC-11 and VWC-157 with new wells located in the western portion of the valley (west of the area shown on Figure ES-2).

The groundwater pumped from these two wells will then be treated at a central location to remove perchlorate prior to entering the potable water conveyance system. The treated water will be pumped to a new treatment facility adjacent to the Rio Vista Intake Pump Station (owned and operated by the CLWA) for subsequent distribution, to help meet water demands.

Returning perchlorate-impacted production wells to service with treatment requires the issuance of a permit by DPH before the water can serve as a potable water supply. Before issuing a





permit, DPH requires that formal studies and engineering work be performed to demonstrate that pumping these wells and treating the water will be protective of human health for the users of the water.

Perchlorate and its salts (e.g., ammonium perchlorate) are used in solid propellant for rockets, missiles, and fireworks. Perchlorate has a number of industrial uses and is also used in matches, flares, pyrotechnics, ordnance, and explosives. The perchlorate plume in groundwater is migrating westward toward the production wells from the Whittaker-Bermite property. A network of sentinel monitoring wells will be used for performance monitoring of the containment plan and for providing early warning of any changes that might occur in groundwater quality upgradient of the containment wells.

The pump and treat is only part of the solution which will include a long-term remedial plan for the Whittaker-Bermite property and nearby groundwater. More details on the sentinel monitoring wells and the long-term plans for the Whittaker-Bermite site are included in Chapter 4.0 Source Water Protection Plan.

This report describes the investigations and analysis completed in compliance with DPH Policy Memo 97-005. The project components included under this evaluation are groundwater wells SCWD-Saugus 1 and SCWD-Saugus 2, connecting pipelines, water treatment facility to treat the Saugus Wells, and appurtenant facilities. The water source would be the Saugus Aquifer, and the completed project would have a capacity of about 2,400 gpm.

1.2 Project Objectives

The key objectives of this project are to:

- ▼ Satisfy the DPH Policy Memo 97-005 requirements for evaluating contaminated water for use as drinking water.
- ▼ Complete an evaluation of water quality, treatment methods, and health risk associated with returning the Saugus Wells to operation to recover lost capacity.
- ▼ Obtain DPH permits for use of the wells for potable production and for containment of the perchlorate plume through a pump and treat approach and for the treatment facilities.
- ▼ Develop a recommended project that would meet California Environmental Quality Act (CEQA) guidelines and that would receive DPH approval.

1.3 DPH Requirements

DPH approval of an extremely impaired source for potable use requires that the health risk, relative to other available drinking water sources, be carefully defined and minimized.





DPH encourages water utilities to minimize, across the board, the concentration of man-made toxic substances, naturally occurring contaminants, and pathogenic microorganisms in drinking water supplies. The regulatory MCLs should not be used as an upper limit where the addition of those contaminants can be reasonably avoided.

DPH also recognizes that extremely impaired water sources represent a significant resource to California utilities. DPH Policy Memo 97-005 sets forth the principles upon which extremely impaired water sources can be treated to produce potable water that is equal or superior to other available supplies. It is on this basic principle that the analysis required by Policy Memo 97-005 was completed for this project. Technical Memoranda (TMs) were developed in accordance with Policy Memo 97-005 requirements. This Engineering Report reformats and updates the information presented in the TMs. Table 1-1 summarizes project tasks and lists the TMs undertaken as a part of the specific tasks. A copy of DPH Policy Memo 97-005, Guidance for Direct Domestic Use of Extremely Impaired Sources, is provided in Appendix A of this report.

**Table 1-1
 Summary of Project Tasks**

Project Task	TMs
1 Source Water Assessment (Report Chapter 2)	▼ TM No. 1 – Source Water Assessment (delineated source water capture zones and summarized an inventory of potentially contaminating activities [PCAs]).
2 Raw Water Quality Characterization (Report Chapter 3)	▼ TM No. 2 – Characterization of Raw Water Quality (characterized raw water quality using DPH guidelines, developed monitoring plan to collect missing data, analyzed water well data and identified trends)
3 Source Protection Plan (Report Chapter 4)	▼ TM No. 3 – Source Protection Plan (evaluated contamination sources and levels, identified protection measures, and developed a water protection implementation plan including sentinel well monitoring and long term remediation of the Whittaker-Bermite property).
4 Monitoring and Treatment (Report Chapter 5)	▼ TM No. 4 – Treatment Evaluation and Effective Monitoring (evaluated alternate treatment processes and developed a recommended treatment approach).
5 Health Risk Assessment (Report Chapter 6)	▼ TM No. 5 – Health Risk Assessment (defined risks of adverse health effects from treatment failure and identified additional treatment safeguards to protect public health)
6 Alternative Sources (Report Chapter 7)	▼ TM No. 6 – Alternative Sources (identified alternate sources of supply, reviewed source water health issues, and compared alternate sources)
7 CEQA Review (Separate document)	▼ Mitigated Negative Declaration Certified October 28, 2005
8 Permit Application (Separate document)	▼ To Be Completed by CLWA
9 Public Hearing Support Documents	▼ Public Hearing Agenda and Minutes To Be Available Upon Request





1.4 Report Organization

The report is organized as shown in Table 1-1 above.

1.5 Abbreviations and Acronyms

A list of abbreviations used in this report is presented below.

ACLs	Administrative Civil Liabilities
AFY	acre-feet per year
AF/yr.	acre-feet per year
Agency	Castaic Lake Water Agency
ALs	action levels
AOC	assimilable organic carbon
ASTs	aboveground storage tanks
AT	averaging time
AwwaRF	American Water Works Association Research Foundation
BAT	best available treatment
BBL/M	barrels a minute
BMD	benchmark dose
BMDL	benchmark dose level
BMPs	Best Management Practices
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
BW	body weight
CaCO ₃	calcium carbonate
Cal-EPA	California Environmental Protection Agency
CAO	Cleanup and Abatement Order
CCP	Concrete Cylinder Pipe
CCR	California Code of Regulations
CDI	chronic daily intake
CDM	Camp, Dresser, and McKee
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CLWA	Castaic Lake Water Agency
CML&C	Cement Mortar Lined & Coated
COI	Contaminant of Interest
COPC	contaminants of potential concern
CUPAS	Certified Unified Program Agencies





CW	contaminant concentration term
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendment
DBPs	disinfection byproducts
DC	direct current
DCE	dichloroethene
DDPB	disinfectants and disinfection byproducts
DLRs	detection levels for purposes of reporting
DPH	California Department of Public Health
DO	dissolved oxygen
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
DWSAP	California Drinking Water Source Assessment and Protection Program
EBCT	empty bed contact time
ED	exposure duration
EDR	electrodialysis reversal
EF	exposure frequency
ESFP	Earl Schmidt Filtration Plant
FBRs	fluidized bed reactors
FDA	United States Food and Drug Administration
Fe	iron
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
ft/sec	feet per second
FXBs	fixed bed reactors
GAC	granular activated carbon
gal/ft ³	gallons per cubic foot
GEIMS	Geographic Environmental Information Management System
GIS	geographic information system
gpm	gallons per minute
gpm/ft ²	gallons per minute per square foot
GRA	General Response Actions
GS/MS	Gas Chromatography/Mass Spectrometry
GWR	Ground Water Rule
GWUI	groundwater under the influence
H&SC	Health & Safety Code
HA	health advisory
HAAs	Haloacetic Acids
HI	hazard index





HMX	octogen
HPC	heterotrophic plate count
HPT	hypothalamic-pituitary-thyroid
HSUs	hydrostratigraphic units
HVOCs	halogenated volatile organic compounds
HWMUs	hazardous waste management units
IFD	Industrial Facilities Discharge
IR	ingestion rate
IRIS	Integrated Risk Information System
IX	ion exchange
KMnO ₄	potassium permanganate
kWh	kilowatt hour
LADD	lifetime average daily dose
lbs/hr	pounds per hour
lb/m	pounds per minute
LOAELs	lowest-observed adverse effect level
LOEL	lowest observed effect level
LUFT	Leaking Underground Fuel Tanks
MCLs	maximum contaminant levels
mgd	million gallons per day
mg/L	milligrams per liter
mg/kg	milligrams per kilogram
MP	monitoring point
MTBE	Methyl tertiary-butyl ether
NC-11	Newhall County Water District Well No. 11
NCI	National Cancer Institute
NCWD	Newhall County Water District
ND	non-detect
NDBA	N-nitrosodi-n-butylamine
NDEA	N-nitrosodiethylamine
NDMA	N-nitrosodimethylamine
NDPA	N-nitroso-n-propylamine
NF	nanofiltration
NFRAP	No Further Remedial Action Planned
ng/L	nanograms per liter
NIH	National Institutes of Health
NIS	sodium iodide supporter
NL	notification level





NMEA	N-nitrosomethylethylamine
NOAEL	no-observed adverse effect level
NOEL	no-observed effect level
NOM	natural organic matter
NPDES	National Pollutant Discharge Elimination System
NPIP	N-nitrosopiperidine
NPL	National Priority List
NRC	Nuclear Regulatory Commission
NRW	non-reclaimable waste
NSF	National Sanitary Foundation
NTCs	non-target compounds
NTS	National Technical Systems
NTU	Nephelometric Turbidity Unit
NYPR	N-nitrosopyrrolidine
O&M	operation and maintenance
OEHHA	California Office of Environmental Health Hazard Assessment
OM&MM	Operations, Monitoring, and Maintenance Manual
OMPP	Operations, Maintenance, and Monitoring Plan
ORP	Oxygen Reduction Potential (ORP)
OSPR	Oil Spill Prevention Regulations (OSPR)
OUs	operable units
PBE	Physical Barrier Effectiveness
PCA	Potential Contaminating Activity
PCBs	polychlorinated biphenyls
PCE	tetrachloroethylene
PCS	Permit Compliance System
PEA	Preliminary Endangerment Assessment
PHG	Public Health Goal
POD	point of departure
POTW	publicly-owned treatment works
ppb	parts per billion
PPP	Pollution Prevention Plan
PRGs	Preliminary Remediation Goals
psi	pounds per square inch
RAGS A	Risk Assessment Guidance for Superfund Volume 1, Human Health Evaluation Manual (Part A)
RAP	remedial action plan
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RDX	cyclonite





RfD	reference dose
RFI	Remediation Financial
RGA	Rule of General Application
RI/FS	Remedial Investigation/Feasibility Study
RMP	Risk Management Plan
RO	reverse osmosis
RO/NF	reverse osmosis/nanofiltration
RSC	Relative Source Contributor
RVWTP	Rio Vista Water Treatment Plant
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCADA	supervisory control and data acquisition
SCWC	Santa Clarita Water Company
SCWD	Santa Clarita Water Division
SDWA	Safe Drinking Water Act
SF	Slope Factor
SLIC	Spills, Leaks, Investigations, Clean Up
SMBRs	submerged membrane bioreactors
SMCLs	secondary maximum contaminant levels
SOCs	synthetic organic compounds
SRF	State Revolving Fund
SVE	soil vapor extraction
SWMUs	solid waste management units
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TDS	total dissolved solids
TG	thyroglobulin
THMs	trihalomethanes
TICs	tentatively identified compounds
TMDL	total maximum daily load
TMs	technical memoranda
TNT	trinitrotoluene
TOC	total organic carbon
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
TSH	thyroid-stimulating hormones
TTHMs	total trihalomethanes





UCMR	Unregulated Contaminants Monitoring Rule
UF	Uncertainty Factor
UFC	Uniform Fire Code
µg/L	micrograms per liter
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USTs	underground storage tanks
UV	ultraviolet light
UWMP	Urban Water Management Plan
VCA	Voluntary Cleanup Agreement
VCM	vinyl chloride monomer
VOCs	volatile organic compounds
VWC	Valencia Water Company
WDRs	waste discharge requirements
WHO	World Health Organization
WMI	Watershed Management Initiative
WQI	water quality inventory
WRP	water reclamation plant
WTP	water treatment plant

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2.0 SOURCE WATER ASSESSMENT

2.1 Overview

This chapter presents the source water assessment required for DPH compliance. The assessment began with a review of the water quality data from the SCWD-Saugus 1 and SCWD-Saugus 2 wells, which identified perchlorate as the key contaminant of concern. Following the water quality review, two, five, ten, and twenty year capture zones were delineated using a regional groundwater flow model constructed and calibrated for the entire Santa Clarita Valley. Known contamination sources in the area were identified using multiple state and federal databases, review of Regional Water Quality Control Board (RWQCB) records, and field assessment. Sources within a two year travel time and those sources thought to be significant in terms of duration or volume of release were reviewed in detail. Following identification of the contaminant sources, a vulnerability analysis was performed to determine which sources present the most serious potential impact to the Saugus production wells. The water supply is considered most vulnerable to known contaminant plumes associated with detected contaminants as well as the following activities not associated with any detected contaminants: automobile-gas stations, dry cleaners, historic gas stations, and known contaminant plumes.

2.2 Background

The purpose of the source water assessment is to determine the extent to which the aquifer or surface water is vulnerable to contaminating activities in the area. The assessment should include the following items: (1) delineation of the source water capture zone, (2) identification of the origin of known contaminants found in the source water and prediction of contaminant level trends, (3) identification of chemicals or contaminants used at or generated by facilities responsible for the known contamination, (4) identification of all potential contaminant sources, and (5) determination of the vulnerability of the water source to these contaminant sources.

The source water assessment completed for the Agency began with a review of the water quality data from the Saugus 1 and Saugus 2 wells. Several contaminants were identified at measurable concentration at the Saugus wells, however perchlorate is considered the key contaminant of concern. VOCs were sometimes detected within the Saugus wells, however levels never exceeded half the MCL. The potential sources for this contaminant and contaminants are listed in Table 2-1.





**Table 2-1
 Potential Sources of Identified Contaminants**

Contaminant ¹	Potential Sources ²	
Boron	Commercial / Industrial	Coal Combustion Mining, Glass / Ceramics Manufacturing
	Residential / Municipal	Landfills / Dumps, Wastewater
	Agricultural / Rural	Pesticide / Fertilizer / Chemical Storage
	Mining	Naturally Occurring
Manganese	Commercial / Industrial	Historic Waste Dumps / Landfills, Junk / Scrap / Salvage Yards, Naturally Occurring
	Residential / Municipal	Naturally Occurring
Perchlorate ³	Commercial / Industrial	Rocket Research / Testing/ Production / Manufacturing, Explosives Manufacturing / Disposal, Hazardous Waste Management Facilities, Firework / Flare Manufacturing, Ordnance Manufacturing, Munitions Demobilization
Cadmium	Commercial / Industrial	Automobile Body Shops / Repair Shops, Boat Repair / Refinishing, Chemical / Petroleum Processing, Construction / Demolition, Drinking Water Treatment, Dry Goods Manufacturing, Electrical / Electronic Manufacturing, Fleet / Trucking / Bus Terminals, Food Processing, Hardware / Lumber / Parts Stores, Home Manufacturing, Machine Shops, Metal Plating / Finishing / Fabricating, Military Installations, Office Building / Complex, Photo Processing / Printing, Medical / Vet Offices, Railroad Yards / Maintenance / Fueling Areas, Research Laboratories, Retail Operations, Synthetics / Plastics Producers, Underground Storage Tanks Wood / Pulp / Paper Processing
	Residential / Municipal	Airports (Maintenance / Fueling Areas), Landfills / Dumps, Public Buildings and Civic Organizations, Schools, Utility Stations, Wastewater
Lead	Commercial / Industrial	Automobile Body Shops / Repair Shops, Boat Repair / Refinishing, Cement / Concrete Plants, Chemical / Petroleum Processing, Construction / Demolition, Dry Goods Manufacturing, Electrical / Electronic Manufacturing, Fleet / Trucking / Bus Terminals, Food Processing, Furniture Repair / Manufacturing, Hardware / Lumber / Parts Stores, Home Manufacturing, Junk / Scrap / Salvage Yards, Machine Shops, Medical / Vet Offices, Metal Plating / Finishing / Fabricating, Military Installations, Mines / Gravel Pits, Office Building / Complex, Photo Processing / Printing, Railroad Yards / Maintenance / Fueling Areas, Research Laboratories, Retail Operations, Synthetics / Plastics Producers, Underground Storage Tanks, Wholesale Distribution Activities, Wood Preserving / Treating, Wood / Pulp / Paper Processing
	Residential / Municipal	Airports (Maintenance / Fueling Areas), Drinking Water Pipe Corrosion, Golf Courses and Parks, Landfills / Dumps, Public Buildings and Civic Organizations, Schools, Utility Stations, Wastewater, Erosion of Natural Deposits
Nickel	Commercial / Industrial	Metal Manufacturing, Coal Ash, Petroleum Storage Areas
	Residential / Municipal	Landfills / Dumps, Septic Systems / Wastewater
Nitrate	Commercial / Industrial	Boat Repair / Refinishing, Historic Waste Dumps / Landfills
	Residential / Municipal	Apartments and Condominiums, Camp Grounds / RV Parks, Golf Courses and Parks, Housing, Landfills / Dumps, Septic Systems, Waste Transfer / Recycling, Wastewater
	Agricultural / Rural	Auction Lots / Boarding Stables, Confined Animal Feeding Operations, Crops - Irrigated + Non irrigated, Lagoons and Liquid Waste, Pesticide / Fertilizer / Petroleum Storage Sites, Rural Homesteads, Erosion of Natural Deposits





Contaminant ¹	Potential Sources ²	
PCE	Commercial / Industrial	Automobile Body Shops / Repair Shops, Cement / Concrete Plants, Chemical / Petroleum Processing, Construction / Demolition, Drinking Water Treatment, Dry Cleaners / Dry Cleaning, Dry Goods Manufacturing, Electrical / Electronic Manufacturing, Fleet / Trucking / Bus Terminals, Food Processing, Gas Stations, Hardware / Lumber / Parts Store, Historic Waste Dumps / Landfills, Home Manufacturing, Injection Wells, Junk / Scrap / Salvage Yards, Machine Shops, Medical / Vet Offices, Metal Plating / Finishing / Fabricating, Military Installations, Mines / Gravel Pits, Motor Pools, Office Building / Complex, Photo Processing / Printing, Railroad Yards / Maintenance / Fueling Areas, Research Laboratories, Retail Operations, Synthetics / Plastics Producers, Wood / Pulp / Paper Processing
	Residential / Municipal	Airports (Maintenance / Fueling Areas), Injection Wells, Public Buildings and Civic Organizations, Schools, Utility Stations
THMs	Residential / Municipal	Drinking Water Treatment
TCE	Commercial / Industrial	Automobile Body Shops / Repair Shops, Chemical / Petroleum Processing, Dry Goods Manufacturing, Electrical / Electronic Manufacturing, Fleet / Trucking / Bus Terminals, Food Processing, Furniture Repair / Manufacturing, Hardware / Lumber / Parts Stores, Historic Waste Dumps / Landfills, Home Manufacturing, Injection Wells, Junk / Scrap / Salvage Yards, Machine Shops, Metal Plating / Finishing / Fabricating, Military Installations, Motor Pools, Office Building / Complex, Photo Processing / Printing, Railroad Yards / Maintenance / Fueling Areas, Research Laboratories, Synthetics / Plastics Producers, Underground Storage Tanks, Wood / Pulp / Paper Processing
	Residential / Municipal	Airports (Maintenance / Fueling Areas), Injection Wells, Public Buildings and Civic Organizations, Schools, Utility Stations

¹These contaminants were detected at measurable concentrations at wells in and around the Saugus and Alluvium formation areas and can be a risk to human health at high enough concentrations.
²Potential sources listed in this table are known sources of these contaminants; however this does not necessarily mean that these sources are present.
³An progress update on clean-up activities at the Whitaker Bermite Facility is given in Section 2.4.2.1.

Following the water quality review, two, five, ten, and twenty year capture zones were delineated using a regional groundwater flow model constructed and calibrated for the entire Santa Clarita Valley. MicroFEM, a finite-element program for multiple-aquifer steady-state and transient ground-water flow modeling was used (CH2MHill, 2004). Known contamination sources in the area were identified using multiple state and federal databases, review of RWQCB records, and field assessment. Following identification of the contaminant sources, a vulnerability analysis was performed to determine to which sources of contamination the wells are most vulnerable. The water supply is considered most vulnerable to known contaminant plumes associated with detected contaminants as well as the following activities not associated with any detected contaminants: automobile-gas stations, dry cleaners, historic gas stations, and underground storage tank systems (USTs) with confirmed leaks. It should be noted that these are usually considered more of a concern for shallower groundwater sources and are not as much of a concern for the deeper Saugus production wells.

2.3 Delineation of Source Water Capture Zone

A regional groundwater flow model was developed for the Santa Clarita Valley (CH2MHill, 2004). The model simulates changes in groundwater flow and storage during the recent 20-year period. The approach to developing the model included:





- ▼ Compiling information on the geology and hydrogeology of the valley and developing a conceptual understanding of the groundwater flow system.
- ▼ Creating a variety of data sets to conduct steady-state and transient calibrations.
- ▼ Constructing the groundwater flow model using the MicroFEM finite-element groundwater flow code, and also using the available database and geographic information system (GIS) for the Santa Clarita Valley.
- ▼ Calibrating the flow model.
- ▼ Performing sensitivity tests on the flow model.

Pumping rates for each well were assigned in the regional groundwater flow model using the following information:

- ▼ Water use records.
- ▼ Estimated monthly water demand or urban and agricultural use.
- ▼ Well construction records.

Once the model was constructed, the capture zones were delineated by determining flow patterns from each of the Saugus wells, as shown on Figure 2-1. These flow patterns utilized the regional groundwater model and assigned pumping rates to determine the capture zones of each well for various points within the 20-year model.

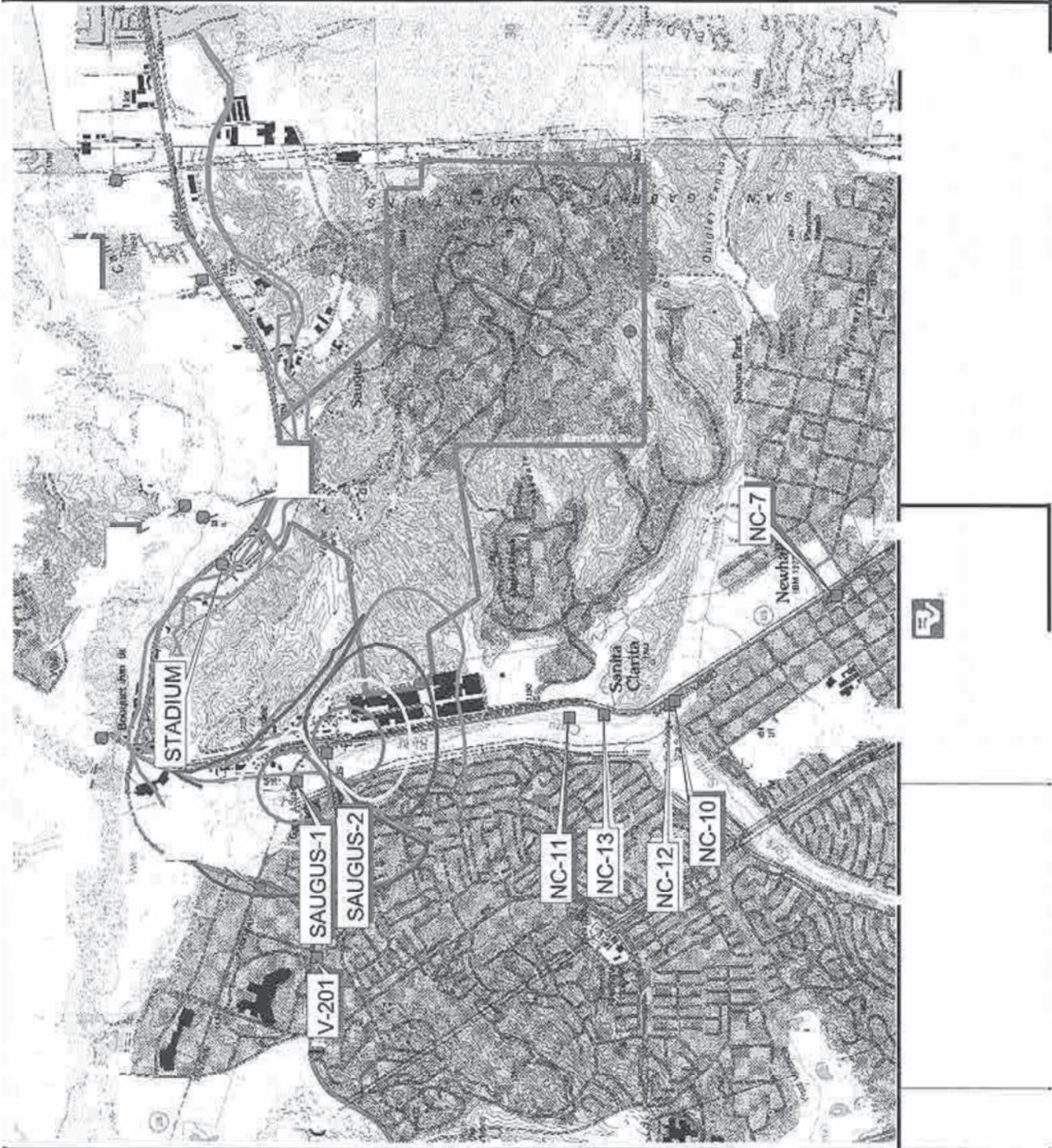
2.4 Identification of Known Contaminants and Sources

An essential element of the drinking water source assessment and protection program is an inventory of Potentially Contaminating Activities (PCAs), which are any activities, facilities, or land uses that can be origins of significant contamination in delineated source protection areas. An inventory of PCAs serves the following functions:

- ▼ Identifies past and present activities that may pose a threat to the drinking water supplies based on their potential to cause significant contamination of groundwater and surface waters.
- ▼ Provides information on the locations of PCAs that present the greatest risks to the water supply.

Table 2-1 identifies common sources associated with the contaminants identified in the source water or other water sources in the area.







PCAs were inventoried and assigned a risk ranking based on the same criteria as the California Drinking Water Source Assessment and Protection Program (DWSAP). The risk rankings of activities were based on U.S. Environmental Protection Agency (USEPA) and California-specific historic information on releases of contaminants and potential contaminant characteristics. The potential risk rankings were assigned based on an assumption that the facilities or activities do not employ best management practices (BMPs) or pollution prevention measures.

Key activities within the capture zones of the Saugus 1 and Saugus 2 wells and the contaminants they may introduce as determined by DPH are summarized in Table 2-2.

**Table 2-2
 Key Activities and Associated Contaminants**

Source	Groundwater Contaminants
Explosives/Ordnance producers, Firing ranges	Perchlorate
Automobile, Body Shops/Repair Shops	Metals and Volatile Organic Compounds (VOCs) including tetrachloroethylene (PCE) and trichloroethylene (TCE)
Dry Cleaners/Dry Cleaning	VOCs including PCE and TCE
Gas Stations	VOCs including PCE and TCE, petroleum hydrocarbons
Illegal Dumping	Multiple and unpredictable potential contaminants
Stormwater Runoff	Sediment, microbiological contaminants, trace metals, nutrients
Streets/Roads	Trace metals, hydrocarbons, Methyl tertiary-butyl ether (MTBE), salts
Plastics/Synthetics Producers	Metals and VOCs
Underground Storage Tanks	Metals, VOCs and petroleum hydrocarbons
Medical/Vet Offices	Metals and VOCs
Photo Processing/Printing	Metals and VOCs including PCE and TCE

2.4.1 Inventory

The capture zone inventory was conducted through a variety of means. Initially, USEPA BASINS 3.0 was used to identify facilities regulated by the USEPA as well as several other entities located within the zone. In addition, contact was made with various agencies providing regulatory oversight for facilities in the basin including the RWQCB and the Department of Toxic Substances Control (DTSC) in an effort to evaluate the concerns of the various agencies. General conditions were then assessed by reconnaissance on foot and by car. The field assessment allowed for data validation and offered insights into large-scale activities potentially affecting source water quality.

2.4.1.1 Contact with Area Agencies

RWQCB databases were inventoried in an effort to determine what areas of concern they may have. The RWQCB maintains the Spills, Leaks, Investigation, and Cleanup (SLIC) and





Geographic Environmental Information Management System (GEIMS) including Leaking Underground Fuel Tanks (LUFT) databases.

The DTSC maintains the Site Mitigation and Brownfields Reuse Program Database. The database tracks properties in California where hazardous substances have been released, or where potential for a release exists.

2.4.1.2 Database Review

Prior to field verification, multiple databases were reviewed to identify PCAs within the capture zone. The GIS-based survey was driven by the data available from the RWQCB and USEPA. Databases used are discussed in Appendix B.

The following USEPA-regulated sites were investigated as a part of the survey. These sites are regulated through programs such as:

- ▼ Industrial Facilities Discharge (IFD)
- ▼ Toxic Release Inventory (TRI)
- ▼ BASINS 3 Permit Compliance System (PCS)
- ▼ Comprehensive Environmental Response, Compensations and Liability Information System (CERCLIS)-Superfund National Priority List (NPL)
- ▼ Resource Conservation and Recovery Information System (RCRIS)

The following RWQCB-monitored sites were investigated as a part of the survey. The RWQCB regulates sites through the following programs:

- ▼ SLIC
- ▼ GEIMS including LUFT

Figures 2-2 and 2-3 for Saugus 1 and Saugus 2, respectively, were derived from the various databases discussed above.

2.4.1.3 Database Summary Tables

Tables 2-3 through 2-7 highlight those sources identified through the database search found in the capture zones of Saugus 1 (Sgs-1) and Saugus 2 (Sgs-2).





**Table 2-3
 Listed RCRIS Sites Within 20 Year Capture Zones of Key Wells**

Company Name	Capture Zone (in years)				ID #
	2	5	10	20	
Scott Irvin Chevrolet			Sgs-1		CAD982058893
Valencia Automotive Center MD Mortgage	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CAD982524738
Midas Muffler		Sgs-2	Sgs-2	Sgs-2	CAD983599069
Keysor-Century Corp		Sgs-2	Sgs-2	Sgs-2	CAD009531591
Hasa Chemical, Inc.	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CAD009656075
Exclusively British	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CAD983596230
VIP Auto Care	Sgs-2	Sgs-2	Sgs-2	Sgs-2 Sgs-1	CAD983589573
Hi Tech Transmission	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CAD983588567
Bermite Facility		Sgs-2	Sgs-2 Sgs-1	Sgs-2 Sgs-1	CAD064573108
A&K Body & Fender		Sgs-2	Sgs-2	Sgs-2	CAD982005233
Western Waste Industrial			Sgs-2	Sgs-2	CAD049339146
Valencia Dodge			Sgs-1	Sgs-1	CAD982040339
Rexhall Industries Inc.				Sgs-2	CAD982478935
Chevron #9-7436				Sgs-1 Sgs-2	CA0000370890
Dart Industries Inc				Sgs-2	CAD044398956

**Table 2-4
 Listed LUFT Sites Within 20 Year Capture Zones of Key Wells**

Company Name	Capture Zone (in years)				ID #
	2	5	10	20	
Bermite Facility				Sgs-1 Sgs-2	T0603704647
Hasa Chemical, Inc.	Sgs-2	Sgs-2	Sgs-2	Sgs-2	T0603704581
Chevron #9-7436				Sgs-1 Sgs-2	T0603703450
Exxon #7-3550				Sgs-1 Sgs-2	T0603704740

**Table 2-5
 Listed IFD Sites Within 20 Year Capture Zones of Key Wells**

Company Name	Capture Zone (in years)				ID #
	2	5	10	20	
Yurosek, Mike and Son	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CA0003620
Thatcher Glass Manufacturing Company	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CA0057991





**Table 2-6
 Listed TRI Sites Within 20 Year Capture Zones of Key Wells**

Company Name	Capture Zone (in years)				ID #
	2	5	10	20	
Rexhall Industries Inc.				Sgs-2	CAD982478935
Hasa Chemical, Inc.	Sgs-2	Sgs-2	Sgs-2	Sgs-2	CAD009656075
Keysor-Century Corp.		Sgs-2	Sgs-2	Sgs-2	CAD009531591

**Table 2-7
 Listed CERCLIS Sites Within 20 Year Capture Zones of Key Wells**

Company Name	Capture Zone (in years)				ID #
	2	5	10	20	
Thatcher Glass Manufacturing Company				Sgs-2	CAD044398956

2.4.1.4 Field Review

The field review served as quality control for the database query process. Photographs of the area were taken during the inventory process.

In addition, the following primary observations were made during the field assessment of the zone.

- ▼ In general, the USEPA databases are fairly spatially accurate. However, the information included may be somewhat out of date and in several cases is incomplete. Because the possible contaminants on sites missing from the USEPA database are not significantly different from the PCAs included in the USEPA database, the PCAs identified through the database query are considered an accurate assessment of the conditions in the area.
- ▼ A variety of potential contaminant sources exist in the capture zones. Sources include: industrial facilities, gas stations, plastics/synthetics producers, chemical/petroleum processing/storage, and waste transfer/recycling stations.

2.4.2 Discussion of Significant Potential Sources

The investigation into area facilities identified potential sources of contamination requiring further investigation. A well-known source of contamination is the Whittaker Corporation’s Bermite Facility, which is detailed below. The following is a discussion of sites located close to the source water aquifer or sites identified in previous studies.

2.4.2.1 Whittaker Corporation’s Bermite Facility

Currently inactive, the 996 acre Bermite facility is located at 22116 West Soledad Canyon Road in Santa Clarita. Whittaker Corporation owned the Bermite facility and manufactured ordnance





(military ammunition and equipment) there from 1967 to 1987. The area was originally subdivided by Newhall Land & Farming Company and Los Angeles Home company in 1912 and comprises three parcels. Parcel 1 is the northern portion of the site now occupied by the commuter rail station. Parcel 2 is the southern, roughly square area of the property. Parcel 3 is the western portion of the Bermite facility. Previous owners included the Los Angeles Powder Company from 1934 to 1936, Halifax Explosives Company from 1936 to 1942, E.P. Halliburton, Inc., in 1942, and Bermite Powder Company from 1942 to October 1967. These companies produced munitions and explosives (Acton, 1997).

During most of the early history, manufacturing was restricted to the northern portion of the property, but, over time, the plant expanded toward the southeast into the central portion of the property. Historical information indicates the Halifax Explosives Company manufactured fireworks at the Bermite facility. In 1942, E.P. Halliburton reportedly manufactured oil field explosives. Between 1942 and 1953, Bermite Powder Company produced a more limited line of products which included flares, photoflash devices for battlefield illumination, and other explosives. The “Bermite” name was applied to the blasting product made from a mixture of the high explosives trinitrotoluene (TNT) and cyclonite (RDX). Neither constituent was synthesized on site but, rather, was purchased as a raw material. From 1953 to 1967, production consisted primarily of detonators, fuses, boosters, coated magnesium, and stabilized red phosphorous (Acton, 1997).

Between 1967 and 1987, the Bermite facility manufactured various products in the general categories listed below:

- ▼ Ammunition rounds
- ▼ Detonators, fuses, and boosters
- ▼ Flares and signal cartridges
- ▼ Glow plugs, tracer and pyrophoric pellets
- ▼ Igniters, ignition compositions, and explosive bolts
- ▼ Powder charges
- ▼ Rocket motors and gas generators
- ▼ Missile main charges

Some of the products listed above were produced in small quantities on an as-needed basis, while others were mass-produced as a result of large defense contracts. Other products remained in research and development stages. When Whittaker ceased production at the Bermite facility in 1987, most of the structures were removed. (Acton, 1997 and 1995).

Chaparral covers the undisturbed portions of the facility with the remainder covered by firebreaks, roads, and remnants of building foundations (Acton, 1997).

Under the Resources Conservation and Recovery Act (RCRA), 14 areas on the Bermite facility, known as the hazardous waste management units (HWMUs), were permitted on an interim basis





by the California Environmental Protection Agency (Cal-EPA) and the USEPA for treatment, storage, and/or disposal of hazardous wastes. A final closure plan was approved by EPA and Cal-EPA for the HWMUs in December 1987. Most of the environmental reports prepared to date are associated with the investigation and cleanup activities for the 14 HWMUs. Thirteen of the 14 HWMUs have received closure certification acknowledgment from Cal-EPA (Acton, 1997).

During October 1993, in response to a request for information from Cal-EPA, Whittaker submitted a report documenting operations and the potential for releases of hazardous materials at 64 additional areas on the Bermite facility. Based on the data contained in the report, Cal-EPA determined that further study was necessary in areas other than the HWMUs previously investigated to assess whether the Bermite facility poses a threat to public health and/or the environment. In November 1994, Cal-EPA and Whittaker entered into the Consent Order requiring further investigation and possible remedial action (Acton, 1997).

In 1997, a draft Remedial Investigation Report was prepared by Acton Environmental, Inc. This report included a set of 76 areas designated as solid waste management units (SWMUs). Five of these areas were noted as having perchlorate levels at least ten times above background levels. Fifty-nine of these sites had VOCs at least ten times above background levels. Background levels are the ambient soil characteristics determined through sampling and historical records. These areas of concern are shown on Figures 2-4 and 2-5. A complete table listing all 76 SWMU areas, corresponding contaminants, and historical PCAs is presented in Appendix C.

Levels of TCE above the MCL of 5 ug/L were detected at monitoring wells MP-2, MP-3, and SS-1 within the Whittaker Bermite site and at MP-5 north of the Saugus wells (USACE). Historic and recent data indicate that this contaminant is not of concern at this time. The locations of the wells where TCE has been detected above regulatory limits are outside the 20 year capture zones of both Saugus 1 and Saugus 2. This can be seen by comparing the capture zones shown in Figure 2-1 to concentrations of VOCs at wells of similar depth shown in the USACE report (see Appendix G discussed in Chapter 3 for more details).





**Perchlorate Detections in Soil
above Background Levels**



An investigation of site characteristics and remediation was completed in two major phases between October 2002 and April 2004. This investigation included the addition of five deep multi-port wells built by USACE and 36 monitoring wells built by Environ after USACE did its field work. Extensive water quality sampling events are led by Environ and soil investigations and remediation planning are led by Camp, Dresser and McKee (CDM). Further details of the Environ monitoring are provided in Chapter 3. The site was divided into six soil-operable units (OU1 – OU6) and one groundwater unit (OU7) by DTSC based largely on topographic features. In 2004, a remedial action plan (RAP) was prepared pursuant to the requirements set forth in the California Health and Safety Code that concerns just the remediation of shallow soils in the area designated OU1. Per the December 2008 monthly status report, the document summarizing the results of soil-vapor extraction (SVE) pilot testing that followed the approval of this RAP is expected to be submitted in March 2009. The Whitakker Bermite facility is preparing the RAP for OU7 for submittal to DTSC.

2.4.2.2 Thatcher Glass Manufacturing Company (DART Industries, Inc.)

Thatcher Glass Manufacturing Company has multiple locations in the Saugus/Santa Clarita area; two of these locations are within the capture zones of one of the key wells. The first site is located within the two year capture zone of the Saugus 2 well. The second site is located within the 20 year capture zone of the Saugus 2 well. Although the facilities are not on the NPL, a state-led cleanup is being conducted there.

The DTSC Calsites database includes historic information dating from August 1954. Multiple site inspections were completed in the late 1950s and early 1960s for both locations. Notes on the sites include waste discharge to the ground, caustic wastewater discharge to an unlined, fenced sump, and oil waste spread on the property. A 1984 summary indicates that the site contained one re-circulation pond for oil, two ponds for water containing chromium, a sludge pond, and a baghouse. Problems at the site include:

- ▼ Discharge of cooling water and regeneration salt rinse to ground and dry wells
- ▼ Discharge of soluble oils (20 barrels a minute [BBL/M]) from 1957 to 1965 on site, small quantity discharge throughout the 1970s)
- ▼ Discharge of caustic rinse water (1,500 pounds per minute [lb/m] in 1957)
- ▼ Problem with polychlorinated biphenyls (PCBs) since 1980

In 1997, DTSC and Thatcher Glass signed a Voluntary Cleanup Agreement (VCA) providing for DTSC review of a Preliminary Endangerment Assessment (PEA). In January 2002, DTSC reviewed and approved the PEA equivalent report. Based on the data submitted, DTSC determined that No Further Action is necessary with respect to investigation and remediation of hazardous substances in the soil at the site.





2.4.2.3 National Technical Systems

The National Technical Systems (NTS) site, located at 20988 Golden Triangle Road, is not within any of the capture zones, but has been included for information purposes. The site is included as it is part of a recent DTSC investigation. Additionally, perchlorate has been identified as a contaminant of concern at the site. The following information was taken directly from the DTSC database.

“Commercial use of the Site began in 1957, when the Marquardt Company began construction of a Research Test Laboratory to study the conditions and problems associated with hypersonic speeds. National Technical Systems, the present owner, took over the Site in the early 1960's and uses the Site for simulated and induced testing services for the aerospace, defense, and automotive industries. The Site has had regulatory involvement with the Los Angeles County Department of Public Works, the Los Angeles County Fire Department, and the County of Los Angeles Department of Health Services. In 1989 or 1990, a release of 800 gallons of jet fuel to the ground occurred. Also, an unknown quantity of waste oil and/or solvent had been dumped onto the ground. A site mitigation program was implemented in 1990, and a subsequent site assessment in 1991 showed non-detects for petroleum and [Benzene, Toluene, Ethylbenzene, and Xylenes] BTEX. However, there were no analyses for perchlorate. NTS was cited in 1990 and again in 1999 for storage of on-site hazardous waste (waste oil, kerosene, magnesium salt, magnesium chips, jet fuels, hydrazine, cooling tower waste) for more than the applicable accumulation period. NTS was also cited in 1999 for a leaking 55-gallon drum in the hazardous waste storage area. Laboratory results for the PA with limited sampling performed by DTSC show elevated levels of perchlorate in four different locations. The groundwater pathway is of concern because the aquifers are interconnected. (DTSC Calsites Database, ID number 19890018)”

2.4.2.4 Hasa Chemical, Inc.

Hasa, Inc., is a manufacturing company, primarily engaged in the production, sale, and distribution of sodium hypochlorite to the industrial and swimming pool markets. The Saugus site, at 23119 Drayton Street, is located within the two year capture zone of the Saugus 2 well. This particular site is the company's corporate office, comprised of a manufacturing facility, warehouses, and administrative offices. Hasa was established in 1964 and expanded to its present 20,000 square foot facility in 1972. Hasa plays a major role in the swimming pool and water treatment industries. Primary industrial products include sodium hypochlorite and muriatic acid while the swimming pool and spa trades are offered a full line of liquid and dry sanitizing products.

2.4.2.5 Keysor-Century Corp

Keysor-Century Corp is a plastic resin company in the chemicals and allied products industry sector, with SIC Code #2821 and NAICS Code #325211 and #5122 (USA Export, 2003 and USEPA, 2003). The Saugus site, at 26000 Springbrook Avenue, is the company's world





headquarters (Keysor, 2003). The company began by manufacturing plastic products, ultimately turning its focus on vinyl records, floor tiles, credit cards, and plastic bottles.

This site is located within the five year capture zone of the Saugus 2 well. The facility is listed under the TRI because of chemical releases to the air. The chemicals released include lead compounds, TCE, vinyl acetate, and vinyl chloride. In 2001, the quantity of chemicals released to the air amounted to 12,417 pounds. Chemicals that have been transferred from the site to Publicly Owned Treatment Works (POTWs) include toluene, TCE, vinyl acetate, vinyl chloride, lead compounds, and sodium hydroxide.

The Keysor-Century site also has a PCS waste discharge permit and is identified as a PCS site located within the ten year capture zone of Saugus 1 well. The facility has a total of 14 discharge points. Water discharge parameters of concern include temperature, turbidity, pH, oil and grease, Freon, 1,1-DCE, and vinyl acetate (USEPA, 2003).

DTSC notes that illegal disposal of wastewater to an unlined pond occurred from the 1960s until 1973. The pond and contaminated soil was removed in 1978. High levels of vinyl chloride monomer (VCM) were detected on the site during an unannounced inspection in 1984.

In December 2002, Keysor-Century announced it would stop manufacturing resins and would only make compounds that use resins from other sources (Worden, 2002). According to *The Signal*, the decision followed a February 2002 multi-federal agency raid and a May 2001 out-of-court settlement on a wrongful termination lawsuit that included the claim that the company had doctored reports and released toxic and hazardous waste into the air and groundwater. (Shea, 2002).

2.4.3 PCA Summary

PCA summary sheets for each of the wells can be found in Appendix D. Common PCAs identified include: body shops, gas stations, repair shops, chemical/petroleum pipelines, dry cleaners, photo processing/printing, sewer collection systems, known contaminant plumes, and underground storage tank systems.

2.5 Vulnerability Analysis

Following the completion of the inventory of PCAs, a vulnerability analysis was conducted to determine the types of PCAs to which the drinking water supply wells are most vulnerable. The analysis factored in the source and/or site characteristics that may affect the vulnerability of the source water to contamination from the types of PCAs identified in the inventory.

2.5.1 Vulnerability Analysis Procedure

The vulnerability analysis evaluated the types of PCAs identified in the inventory within the context of the characteristics of the source and proximity to water supply.





The Physical Barrier Effectiveness (PBE) is essentially an estimate of the ability of the natural geologic materials, hydraulic conditions, and construction features of the water supply well to prevent the movement of contaminants to the drinking water source. For groundwater supplies, the PBE evaluation considers the hydrogeology, source, well construction information, and other data. PBE determination worksheets are shown in Appendix D.

Following the determination of a PBE, the vulnerability of a site is determined. Based on the approach developed by DPH, relative vulnerabilities were established. The vulnerability ranking process is shown in Appendix D. The process involves reviewing each type of PCA identified in the inventory and assigning points based on the risk ranking of the type of PCA, the capture zone in which it occurs, and the PBE of the drinking water source. The points are added together, and the types of PCAs are prioritized according to points from highest to lowest, with the highest points representing the types of PCAs to which the source is most vulnerable. Sources with a Vulnerability Score less than 11 were considered less of a potential threat to the water supply.

DPH notes that the vulnerability points assigned to a source do not have a quantitative value. The score is used to determine a relative contaminant risk for an individual contaminant source, allowing the risk generated by the source to be prioritized for management. The score can then be used as a tool to facilitate local contaminant source water protection programs that are site-specific.

2.5.2 Vulnerability Assessment Summary

An assessment for the Saugus 1 and Saugus 2 wells was updated in March 2005. A copy of the complete assessment may be viewed at:

Santa Clarita Water Division
Castaic Lake Water Agency
22722 W. Soledad Canyon Rd.
Santa Clarita, CA 91380

To receive a summary of the assessment, individuals may contact:

Cathy Hollomon
Water Resource Planner
661-259-2737

The source water is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

Known contaminant plumes specifically the plume associated with the Whittaker – Bermite site contaminated with perchlorate.





The source water is considered most vulnerable to the following activities not associated with any detected contaminants:

- Automobile-gas stations
- Historic gas stations
- Chemical/petroleum processing/storage
- Metal plating/ finishing/fabricating
- Plastics/synthetics producers

Tables 2-8 and 2-9 summarize the sites with a vulnerability score greater than or equal to 11 for, respectively, the Saugus 1 Well and Saugus 2 Well; the score was calculated through the process described above. Capture zones are denoted as A, B5 and B10 corresponding to the 2, 5 and 10 year capture zones discussed earlier. The risk level for each PCA was determined to be either low (L), medium (M), high (H) or very high (VH).

**Table 2-8
 Top PCAs for the Saugus 1 Well**

Zone	PCA (Risk)	Vulnerability Score
A	Chemical/petroleum processing/storage (VH)	15
A	Metal plating/ finishing/fabricating (VH)	15
A	Plastics/synthetics producers (VH)	15
A	Known Contaminant Plumes (VH)	15
A	Automobile- Body shops (H)	13
A	Automobile- Repair shops (H)	13
A	Sewer collection systems- Comm/Indus (H, if in Zone A, otherwise L)	13
A	Railroad yards/ maintenance/ fueling areas (H)	13
A	Sewer collection systems- Residential (H, if in Zone A, otherwise L)	13
B5	Chemical/petroleum processing/storage (VH)	13
B5	Metal plating/ finishing/fabricating (VH)	13
B5	Plastics/synthetics producers (VH)	13
B5	Known Contaminant Plumes (VH)	13
A	Parking lots/malls (>50 spaces) (M)	11
A	Hardware/lumber/parts stores (M)	11
A	Wells – Water supply (M)	11
A	Transportation Corridors- Freeways/state highways (M)	11
A	Transportation Corridors- Railroads (M)	11
A	Transportation Corridors- Historic railroad right-of-ways (M)	11
A	Storm Water Detention Facilities (M)	11
B5	Automobile- Body shops (H)	11
B5	Automobile- Repair shops (H)	11
B5	Fleet/truck/bus terminals (H)	11
B5	Railroad yards/ maintenance/ fueling areas (H)	11
B10	Chemical/petroleum processing/storage (VH)	11
B10	Metal plating/ finishing/fabricating (VH)	11
B10	Plastics/synthetics producers (VH)	11
B10	Known Contaminant Plumes (VH)	11





**Table 2-9
 Top PCAs for the Saugus 2 Well**

Zone	PCA (Risk)	Vulnerability Score
A	Automobile- Gas stations (VH)	15
A	Known Contaminant Plumes (VH)	15
A	Sewer collection systems- Comm/Indus (H, if in Zone A, otherwise L)	13
A	Railroad yards/ maintenance/ fueling areas (H)	13
A	Sewer collection systems- Residential (H, if in Zone A, otherwise L)	13
B5	Automobile- Gas stations (VH)	13
B5	Known Contaminant Plumes (VH)	13
A	Parking lots/malls (>50 spaces) (M)	11
A	Wells – Water supply (M)	11
A	Transportation Corridors- Freeways/state highways (M)	11
A	Transportation Corridors- Railroads (M)	11
A	Transportation Corridors- Historic railroad right-of-ways (M)	11
B5	Railroad yards/ maintenance/ fueling areas (H)	11
B10	Automobile- Gas stations (VH)	11
B10	Known Contaminant Plumes (VH)	11





3.0 RAW WATER QUALITY CHARACTERIZATION

3.1 Overview

This chapter presents the characterization of raw water quality for the project. Specifically, this chapter details the results and analysis of recent water quality tests conducted on Saugus 1 and Saugus 2. The results of this analysis were used to develop the water treatment strategy required to use this water as a potable source.

In attempt to validate this data, this chapter also reviews historical data indicative of water quality in the wells prior to well shutdown as well as recent water quality data collected from monitoring wells in the area. These wells were installed as part of a conceptual hydrogeologic study conducted by the USACE.

The water from the SCWD-Saugus 1 and SCWD-Saugus 2 can be characterized as moderately buffered, hard water with moderate concentrations of dissolved oxygen and dissolved solids. Perchlorate was observed to exceed the MCL of 6 parts per billion (ppb). No other contaminant consistently exceeded its drinking water standard. However, both iron (Fe) and heterotrophic plate count (HPC) concentrations were detected at high levels in at least one of the groundwater wells. As levels of Fe and HPC are likely due to the lack of use and insufficient development of these wells for several years, these contaminants need not be targeted in the development of a treatment strategy.

Support document used for this chapter can be found in Appendix F: “Summary of Water Quality Sampling from Saugus Wells – Draft Report, September 2003.” (Prepared for CLWA by Carollo Engineers.)

3.2 Raw Water Quality Characterization Objectives

The selection of treatment systems and appropriate level of monitoring required to produce a safe drinking water supply requires a full understanding of the historic and current raw water quality. A sampling program was performed to characterize the current water quality in the Saugus Formation wells, and historical data from these wells was analyzed to evaluate the expected water quality during steady state operation. The objectives of the raw water quality characterization were to:

- ▼ Identify compounds in the water source that are regulated or unregulated by Title 22, California Notification Levels (NLs), previously referred to as Action Levels, or listed pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986.
- ▼ Establish the microbiological quality of the water.
- ▼ Identify any gross contaminant measures, inclusive of compounds identified in the Source Water Assessment presented in Chapter 2.





- ▼ Determine the variability of contaminant concentrations with time and pumping rate.

3.3 Facilities and Description

3.3.1 Location

Raw water was sampled from the SCWD’s Saugus 1 and Saugus 2. Sampling was also performed on NCWD’s Well No. 11. However, CLWA subsequently confirmed that this well was not currently needed for the perchlorate plume containment and therefore, was not to be addressed for permitting at this time. The production wells are located along the South Fork of the Santa Clara River in northwestern Los Angeles County. Saugus 1 and Saugus 2 wells have been shut down since 1998 due to perchlorate detection and have not been operational since. The locations of these wells are shown on Figure ES-1. Each of the wells is screened only within the Saugus Formation. Table 3-1 summarizes the construction data for the Saugus Formation wells.

**Table 3-1
 Construction Data for Saugus Formation Wells**

Well	Year Drilled	Total Depth (ft)	Perforated Intervals (ft)	Perforation Type
Saugus 1	1988	1,640	490-520 570-630 710-810 890-1000 1020-1080 1130-1190 1290-1330 1400-1620	Wire Wrap Screen
Saugus 2	1988	1,612	490-495 515-555 585-725 824-883 923-983 1043-1103 1212-1251 1310-1591	Wire Wrap Screen

3.3.2 Sampling Program

The sampling program of the perchlorate-contaminated wells was conducted by Kennedy/Jenks Consultants and Richard C. Slade and Associates. Carollo Engineers obtained split samples for use in their follow up evaluations, which were the basis for this chapter. Approximately 10,000 gallons of water were purged (i.e., pumped and discharged) over a period of a few hours to collect a grab sample. Quantity of well purge was limited by lack of facilities for containment of water. In addition, samples were collected at the wellhead tap of each well to analyze the





concentration of contaminants in the well blend (representative samples from the well perforation over the depth of the casing). Three wellhead samples were collected over time:

- ▼ Initial Purge A sample (representative of the first few minutes of pumping, three detention times of the casing, or approximately 2,000 gallons).
- ▼ Purge B sample during the first hour of pumping at least 30 minutes after the initiation of purge.
- ▼ Purge B sampling during the last hour of pumping. Purge B pumping lasted up to 3 hours during sampling.

Due to sampling and residuals management procedures for the perchlorate-impacted wells, the wells were sampled sequentially. The schedule for purging and sampling is shown in Table 3-2.

**Table 3-2
 Schedule of Saugus Well Sampling**

Well	Purge A Sampling Date	Purge B (Initial and Final) Date
Saugus 1	May 2, 2003	May 6, 2003
Saugus 2	June 6, 2003	June 9, 2003

The flow rates used during the purging of the impacted wells and the time interval between Purge B Initial and Final samples are summarized in Table 3-3.

**Table 3-3
 Sampling Conditions**

Well	Sampling Conditions	Typical Flow Rate
Saugus 1	Two hours between Initial and Final Purge B samples	1,000 gpm
Saugus 2	One hour and 15 minutes between Initial and Final Purge B samples	≈ 1,000 gpm

Because of the importance of obtaining representative groundwater samples from the wells, discharge water quality parameters (electrical conductivity, pH, turbidity, and dissolved oxygen content) were measured at appropriate time intervals during the well purging. Water quality was defined as stable if, for three consecutive readings taken at 15-minute intervals, the two following conditions were met:

- ▼ Conductivity readings were within 10 percent of the average.
- ▼ pH varied by no more than 0.2 pH units.





3.4 Historic Raw Water Quality Results

The historical raw water quality data from the Saugus 1 and 2 wells is summarized in Tables 3-4 and 3-5. The information in Table 3-4 was obtained by Carollo Engineers directly from CLWA and SCWD water quality databases as part of their sampling program and covers the period from July 1991 to April 1997, where available. The values are representative of the water quality produced by the wells during steady-state operation. The raw waters can be characterized as hard waters with moderate concentration of total dissolved solids (TDS) according to this data. The only contaminant to exceed its water quality goal was perchlorate, where concentrations in the impacted wells ranged from 13 to 42 ppb. Sulfate concentrations ranged from 84 to 190 milligrams per liter (mg/L), and TCE concentration was measured in the Saugus 1 well at a MCLs.

**Table 3-4
 Historical Water Quality Data from CLWA and SCWD**

Parameter	Well	Saugus 1		Saugus 2	
	Date	July 91 to May 97		Nov 90 to Apr 97	
	Units	MIN	MAX	MIN	MAX
Arsenic	µg/L	<2	<5	<2	<5
Perchlorate	µg/L	16	42	12	23
Calcium	mg/L	84	100	66	76
Chloride	mg/L	27	140	17	26
Fluoride	mg/L	0.3	0.3	0.3	0.3
TCE	µg/L	0.7	3.9	<0.5	1.5
Magnesium	mg/L	18	22	15	17.0
Nitrate + Nitrite (as N)	µg/L	4200	4200	2000	2000
pH		7.6	7.9	7.6	7.9
Potassium	mg/L	2.1	2.4	2.1	2.3
Specific Conductance	µmhos/cm	730	820	605	685
Sulfate	mg/L	140	190	84	110
Total Alkalinity (as CaCO ₃)	mg/L	200	230	200	205
TDS	mg/L	480	525	360	450
Total Hardness (as CaCO ₃)	mg/L	288	340	226	260

Table 3-5 shows perchlorate values collected from the DPH database. Like in the data collected by CLWA, these wellhead samples were collected for analysis during operation of the production wells, prior to shutdown. This data shows the perchlorate concentrations in the contaminated wells increasing over time. Recent water quality data presented later in this report indicates that this rise in contamination continues.





**Table 3-5
 Historical Water Quality Data from California DPH**

Parameter	Well	Saugus 1		Saugus 2	
		Date	Value	Date	Value
Perchlorate	µg/L	May 97	21	Apr 97	12
		Apr 98	34	May 97	14
				June 97	16
				Apr 98	47

3.5 Current Water Quality Test Results

The water quality test results presented herein were collected in accordance with the sampling program discussed in Section 3.3. Purge A samples were analyzed for a limited number of parameters including pH, temperature, Oxygen Reduction Potential (ORP), perchlorate, nitrate, sulfate, turbidity, TDS, total organic carbon (TOC), ultra-violet (UV) 254 absorbance, conductivity, Fe, hardness, calcium, and magnesium. Purge B (initial and final samples) were analyzed for the regulated and unregulated chemicals listed in Appendix E. In addition, USEPA methods 625 and 8270 were used for impacted wells Saugus 1 and Saugus 2 to identify tentatively identified compounds (TICs) through peak inspections not related to internal standards or surrogates.

3.5.1 Title 22 Drinking Water Quality Regulated and Unregulated Chemicals

Table E-1 in Appendix E shows the Drinking Water Quality Regulations used to characterize the water in the wells. Using these regulations, the source water assessment contaminants and current water quality data from each were evaluated in terms of which contaminants exceeded, or had the potential to exceed, their Primary MCLs, Secondary Maximum Contamination Limits (SMCLs), NLs, or Public Health Goals (PHGs). The primary source of information was Title 22, Chapters 15 and 17, of the California Regulations as related to Drinking Water. Some MCLs were listed in the Stage 2 Disinfectants and Disinfection Byproducts (DDBP) Rule. When values for potential contaminants were not available from these two sources, the 2004 Drinking Water Standards as issued by the USEPA were referenced. All available PHGs as issued by the Office of Environmental Health Hazard Assessment (OEHHA) were also listed.

In addition to contaminants listed in Table E-1, Table E-2 in Appendix E presents Unregulated Contaminants covered by the Unregulated Contaminants Monitoring Rule (UCMR).

3.5.2 Source Water Assessment Compounds

DPH Policy Memo 97-005 also requires the submission of a source water assessment (see Chapter 2) that determines the vulnerability of a potential water source to be contaminated by activities in the surrounding area, or capture zone. The completion of this assessment for these





two wells identified a variety of detected contaminants, potentially due to commercial, industrial, residential or agricultural operations in the region. These substances included:

- ▼ Boron
- ▼ Cadmium
- ▼ Lead
- ▼ Nickel
- ▼ Nitrate
- ▼ Manganese
- ▼ Perchlorate
- ▼ PCE
- ▼ Total Trihalomethanes (TTHMs)
- ▼ TCE

These water supply sources were also considered most vulnerable to the following activities not associated with any detected contaminants: automobile-gas stations, dry cleaners, historic gas stations, and known contaminant plumes. All known contaminants related to these operations were targeted in the analysis of raw water quality data to confirm the impact of these activities on the quality of the water source.

3.5.3 Analytical Results from Current Water Quality Data

The analytical results from the sampling program are broken down into eight categories as defined below.

3.5.3.1 General - Physical

Table 3-6 presents the average sampled values for each physical characteristic analyzed during the sampling process for each well.





**Table 3-6
 Physical Characteristics of Well Water**

Parameter	Units	Saugus 1	Saugus 2	Standard Value	Standard Source
		Final Purge B	Final Purge B		
pH	--	7.4	7.5	6.5-8.5	MCLG
Alkalinity (as CaCO ₃)	mg/L	169	176	240	MCLG
Hardness (as CaCO ₃)	mg/L	346	283	--	--
Color	CU	<5	<5	15	SMCL
DO	mg/L	5.6	6.2	--	--
TDS	mg/L	569	393	1000	SMCL
Conductivity	µmhos/cm	870	964	1600	SMCL
TSS	mg/L	2	<1	--	--
Turbidity	NTU	0.87	1.62	5	SMCL
TOC	mg/L	<0.7	<0.7	--	--
UV-254	1/cm	0.010	0.007	--	--
AOC	µg/L	44	46	--	--
ORP	mV	524	N/A	--	--
Temperature	°C	19	19	--	--

From these values, the following conclusions were made:

- ▼ Saugus 1 and Saugus 2 can be characterized as having moderately buffered, hard water that contains moderate concentrations of dissolved solids and dissolved oxygen.
- ▼ Saugus 1 and Saugus 2 are low in total organic content.
- ▼ Saugus 1 and Saugus 2 have moderate levels of assimilable organic carbon (AOC). Concentrations of less than 50 µg/L of AOC are suggested for the control of coliforms in the distribution systems.

3.5.3.2 Metals

Table 3-7 presents the average sample values for each metal contaminant analyzed during the sampling process for each well.





**Table 3-7
 Metal Contaminants of Well Water**

Parameter	Units	Saugus 1	Saugus 2	Standard Value	Standard Source
		Final Purge B	Final Purge B		
Aluminum	mg/L	0.010	0.017	1 0.2	MCL SMCL
Antimony	µg/L	<6	<6	6	MCL
Arsenic	µg/L	<1	<1	10	MCL
Beryllium	µg/L	<1	<1	1 4	PHG MCL
Boron	µg/L	324	316	1000	MCL
Cadmium	µg/L	<1	<1	5	MCL
Chromium III	µg/L	1.8	<1	50 total Cr	MCL
Chromium VI	µg/L	1.8	0.6	50 total Cr	MCL
Copper	mg/L	0.0043	0.0061	0.17	PHG
Cyanide	µg/L	<25	<25	150	MCL
Fe	µg/L	187	199	300	SMCL
Lead	µg/L	0.53	<0.5	15	NL
Manganese	µg/L	12	10	50	SMCL
Mercury	µg/L	<0.2	<0.2	2	MCL
Nickel	µg/L	2	10	100	MCL
Selenium	µg/L	<5	<5	50	MCL
Silver	µg/L	N/A	<5	100	SMCL
Thallium	µg/L	<1	<1	2	MCL
Vanadium	µg/L	9	6.5	50	NL
Zinc	mg/L	0.022	0.017	5	SMCL

Reference Table E-1 for Regulatory Body

Metals did not exceed their MCL or NL. Fe contamination found in the Saugus wells is a relatively minor concern compared to the contaminant plume originating in the Whittaker Bermite site. Fe and manganese were high relative to the expected treated water quality during the initial purging of the impacted wells, but decreased to levels below the 300 µg/L SMCL within the first hour of purging (refer to Section 3.7 and Figure 3-7 for more details). These initial concentrations appear to be due to the length of time that the well was left dormant and, therefore, it is recommended that the initial elevated Fe concentrations need not be addressed in the treatment process evaluation.

3.5.3.3 Inorganics

Table 3-8 presents the average sampled values for each inorganic contaminant analyzed during the sampling process for each well.





**Table 3-8
 Inorganic Concentrations of Well Water**

Parameter	Units	Saugus 1	Saugus 2	Standard Value	Standard Source
		Final Purge B	Final Purge B		
Asbestos	MFL	<0.2	<0.2	7	MCL
Barium	mg/L	0.058	N/A	1	MCL
Bromide	mg/L	0.13	0.11	--	--
Chloride	mg/L	24	14.4	500	NL
Fluoride	mg/L	0.27	0.29	2	NL
Nitrate (as NO3)	mg/L	15.4	11.4	45	MCL
Nitrite (as N)	mg/L	<0.1	<0.1	1	MCL
Sulfate	mg/L	194	106	500	SMCL
Perchlorate	µg/L	40	60	6	MCL

Sulfate concentrations are elevated, but, as with historic data values of this contaminant, concentrations are below the MCL. All other inorganic contaminants are sufficiently below the MCL to cause no concern, other than perchlorate. Therefore, this contaminant should be targeted in the design of the source water treatment process.

3.5.3.4 Radioactivity

Table 3-9 presents the average sampled values for each radioactive contaminant analyzed during the sampling process for each well.

**Table 3-9
 Radioactive Concentrations of Well Water**

Parameter	Units	Saugus 1	Saugus 2	Standard Value	Standard Source
		Final Purge B	Final Purge B		
Uranium	pCi/L	3.561	1.428	20	MCL
Radon	pCi/L	110	110	300	MCLG
Tritium	pCi/L	345	449	20000	MCL
Gross Alpha Radiation	pCi/L	<1.3	1.5	15	MCL
Gross Beta Particle Activity	mrem/yr	2.1	1.7	50	MCL
Total Alpha Radium	pCi/L	0.551	0.062	5	MCL
Strontium-90	pCi/L	0	0.408	8	MCL

None of the radioactive compounds measured in the perchlorate-impacted wells exceeded their MCLs.





3.5.3.5 Synthetic Organic Compounds

Non-volatile synthetic organic carbons (SOCs) in all collected samples were below analytical reporting limits. A complete list of results is provided in Appendix F.

3.5.3.6 Volatile Organic Compounds

Only two VOCs exceeded analytical reporting limits in the collected samples. TCE was detected in Saugus 1, and formaldehyde was detected in Saugus 2. However, in both cases, these contaminants were found to be well below their individual MCLs or NLs. A complete list of results, inclusive of cyclonite (RDX), octogen (HMX), and trinitrotoluene (TNT) concentrations, is provided in Appendix F.

Levels of TCE above the MCL were detected at monitoring wells MP-2, MP-3, and SS-1 within the Whittaker Bermite site and at MP-5 north of the Saugus wells (USACE). Historic and recent data indicate that this contaminant is not of concern at this time as the locations of the wells where TCE has been detected above limits are outside the 50 year capture zones of both Saugus 1 and Saugus 2.

3.5.3.7 Microbiological Quality

Table 3-10 presents the average sampled values for each microbiological contaminant analyzed during the sampling process for each well.

**Table 3-10
 Microbiological Concentrations of Well Water**

Parameter	Units	Saugus 1	Saugus 2	Standard Value	Standard source
		Final Purge B	Final Purge B		
Fecal Coliforms	A/P ¹	A	A	Zero	MCLG
Total Coliforms ²	A/P ¹	P	A	5% (zero)	MCLG
HPCs ³	cfu/mL	485	1190	<500	MCLG

1. A is absent. P is present.
2. The total Coliform regulatory value applies to monthly results of routine Coliform sampling performed in the distribution system.
3. Heterotrophic Plate Counts (HPCs) are measured in terms of bacterial colonies per milliliter.

Saugus 1 was the only well that showed a positive result for total coliforms. Follow up tests were not conducted. A high level of HPCs was measured in Saugus 2. However HPCs are a naturally occurring phenomenon in well operations. The bacteriological concentrations found in the Saugus wells are a relatively minor concern and does not need to be targeted during the process treatment design.

3.5.3.8 Tentatively Identified Compounds (TICs)

The USEPA's main method used to identify organic compounds in environmental samples is Gas Chromatography/Mass Spectrometry (GC/MS). The GC/MS as used by the USEPA can





determine approximately 130 compounds referred to as "Target Compounds List" and are analyzed in this sampling program as organics. Chemicals not on the "Target Compound List" are referred to as TICs or Non-target Compounds (NTCs). TICs occur in virtually all surface and groundwater sources at trace level and have frequently been detected in ultra-pure distilled water.

TICs were identified using USEPA Method 625/8270 through peaks inspections not related to internal standard or surrogates. This method is a scan for all TICs. If positive result occurs on a sample, the owner is required to run other tests to identify the elevated compound. This was conducted for Saugus 1 and Saugus 2. All concentrations of these contaminants measured were non-detect.

3.6 Validation of Data

This section presents data from two other studies to validate the data collected as part of the Carollo sampling program. The results of USACE Groundwater Study and the on-going Environ monitoring as part of the remediation program are summarized below.

3.6.1 Data from Eastern Santa Clara Subbasin Groundwater Study

In order to validate the current water quality information used as a basis for design, further data from a concurrent groundwater study was assessed. The Eastern Santa Clara Subbasin Groundwater Study was performed by CH2MHILL under contract to the USACE and sponsored by CLWA. The scope of the project included the completion of a baseline assessment to evaluate the nature and extent of the regional groundwater impact from perchlorate contamination on the former Whittaker Corporation Bermite Facility site in Santa Clarita (see Chapter 2 for details) and in adjacent areas of the Santa Clarita Valley. The technical memorandum developed following the study, *Conceptual Hydrogeology Technical Memorandum*, summarizes the results of these site characterization efforts and is included in Appendix G.

The study focused on groundwater sources fed from the Saugus and Alluvium Aquifers. As part of this study, a conceptual hydrostratigraphic model was defined, made up of 10 hydrostratigraphic units (HSUs) to provide a general framework to evaluate the groundwater flow conditions and migration of contaminants of interest (COIs). These details are shown on Figure 3-1. The allocation of the HSUs were primarily based on the movement of perchlorate, PCE, and TCE concentrations through the geophysical layers as all other COIs either had inconsistent detections or low reported concentrations. The HSUs were also defined based on current and historical hydraulic head data, observed pumping responses to Saugus Formation well extraction, and interpretation of geophysical logs. The Alluvium Aquifer was in the Quaternary Alluvium Unit. Saugus 1 and Saugus 2 were found in Saugus Units SIII through SVII, south of the San Gabriel Fault.



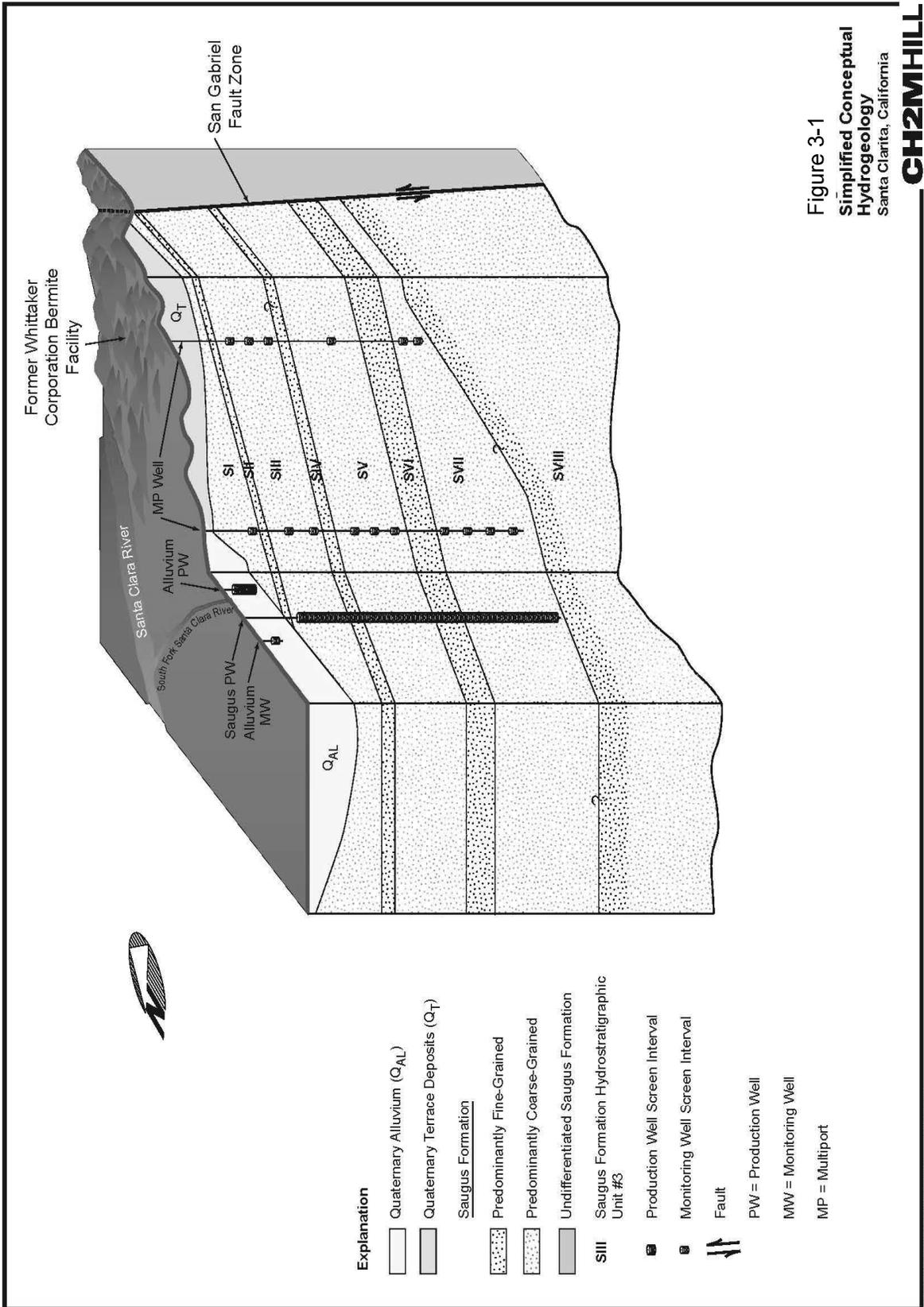


Figure 3-1
Simplified Conceptual
Hydrogeology
Santa Clarita, California

CH2MHILL



To complete the study, 41 monitoring wells were installed at 11 different locations, 6 locations of which were within the Saugus Aquifer. Observations from these wells seemed to show that the groundwater flow conditions and aquifer properties of each unit are distinct. Not only did the hydraulic heads from these locations show distinct discontinuities through the vertical gradient, they each responded differently to Saugus production well extraction. Conversely, similar pumping responses were observed for groups of wells and monitoring (MP) screens located in the same HSUs.

Four of the wells within the Saugus Aquifer were used to evaluate the extent of impact from the Bermite Facility in Saugus 1 and 2. Table 3-11 details the location of each monitoring well, when they were monitored, and what the analysis of each set of data was used to evaluate. Figure 3-2 presents the location and gradient of these monitoring wells relative to Saugus 1 and 2. These four wells represent a combination of vicinity to the Bermite Facility, and location and gradient relative to the Saugus wells. These four wells (MP1-A is part of MP1) are located in the same or adjacent HSUs and are likely to exhibit similar hydraulic and water quality tendencies. Furthermore, the USACE selected these wells to evaluate the extent of COI contamination in Saugus 1 and 2. Therefore, the quality of water from these wells is expected to be representative of possible variations in our raw water quality characterization and could indicate potential derailers to the treatment process design.

Although other monitoring wells within the Saugus or Alluvium Aquifer were used in the USACE study, these wells were not upgradient or downgradient of Saugus 1 or 2, were not used by USACE to evaluate COIs in the Saugus Wells, and therefore were not used to validate our sampled data. For example, there were two further monitoring wells for the Saugus Aquifer (MP-3 and MP-4) from which data was collected as part of the USACE study, but their water quality was not used in this analysis as their location was north of the San Gabriel Fault and not on any up-, down-, or cross-gradient from Saugus 1 and 2. It was concluded that their data was unlikely to be representative of water quality variations within Saugus 1 and Saugus 2.

Table 3-12 shows the average of data collected from sampling events between January 2003 and April 2004 from the four monitoring wells neighboring Saugus 1 and Saugus 2. Given the depth of the Saugus Wells (greater than 1,500 feet), data was collected from the deeper screens where possible. Figure 3-1, showing the hydrostatic units, was used to identify those screen levels of each monitoring well that were more relevant to the Saugus Production Wells.





Table 3-11
Existing Monitoring Wells in the Vicinity of Saugus 1 and Saugus 2¹

Name	Saugus Well Capture Zone	Depth (ft)	Location	Dates of Sampling	USACE Drilling Objectives of Study
MP-1	10 yr	1,588	Upgradient of Saugus 1 and Saugus 2.	January 03 July 03	Evaluate the extent of COIs between Burn Valley (OU3/OU6) and Saugus 1 and Saugus 2.
MP-1A	10 yr	165	Upgradient of Saugus 1 and 2. Adjacent to MP-1	September 03 January 04 April 04	Evaluate to extent of COIs in the shallow Saugus Formation near MP-1.
MP-5	10 yr	995	Offsite and downgradient of the Saugus Wells.	January 03 January 04 April 04	Evaluate the extent of COIs downgradient of Saugus 1 and 2.
MP-2	50 yr ²	1,330	Upgradient of Saugus 1, Saugus 2, and within the Whittaker Bermite Facility.	January 03 July 03 January 04	Evaluate extent of COIs downgradient of OU6. Serve as a potential sentry well upgradient of Saugus 1 and Saugus 2.
CW-1	50 yr*	305 (CW-1A) 435 (CW-1B) 568 (CW-1C)	Northeast and crossgradient of MP-1. Outside of the Whittaker Bermite Facility.	September 03 January 04 April 04	Evaluate the extent of COIs crossgradient of MP-1 (likely the northern edge of impact in the Saugus Formation).

¹This data was collected from the USACE Conceptual Hydrogeology Technical Memorandum issued in January 2005. Environ has completed water quality sampling since this time. This is discussed in later sections.

² Figures 2-2 and 2-3 in Chapter 2 identify 2, 5, 10, and 20 year capture zones. Preliminary mapping evaluations show that these wells are outside the 50 year capture zone.



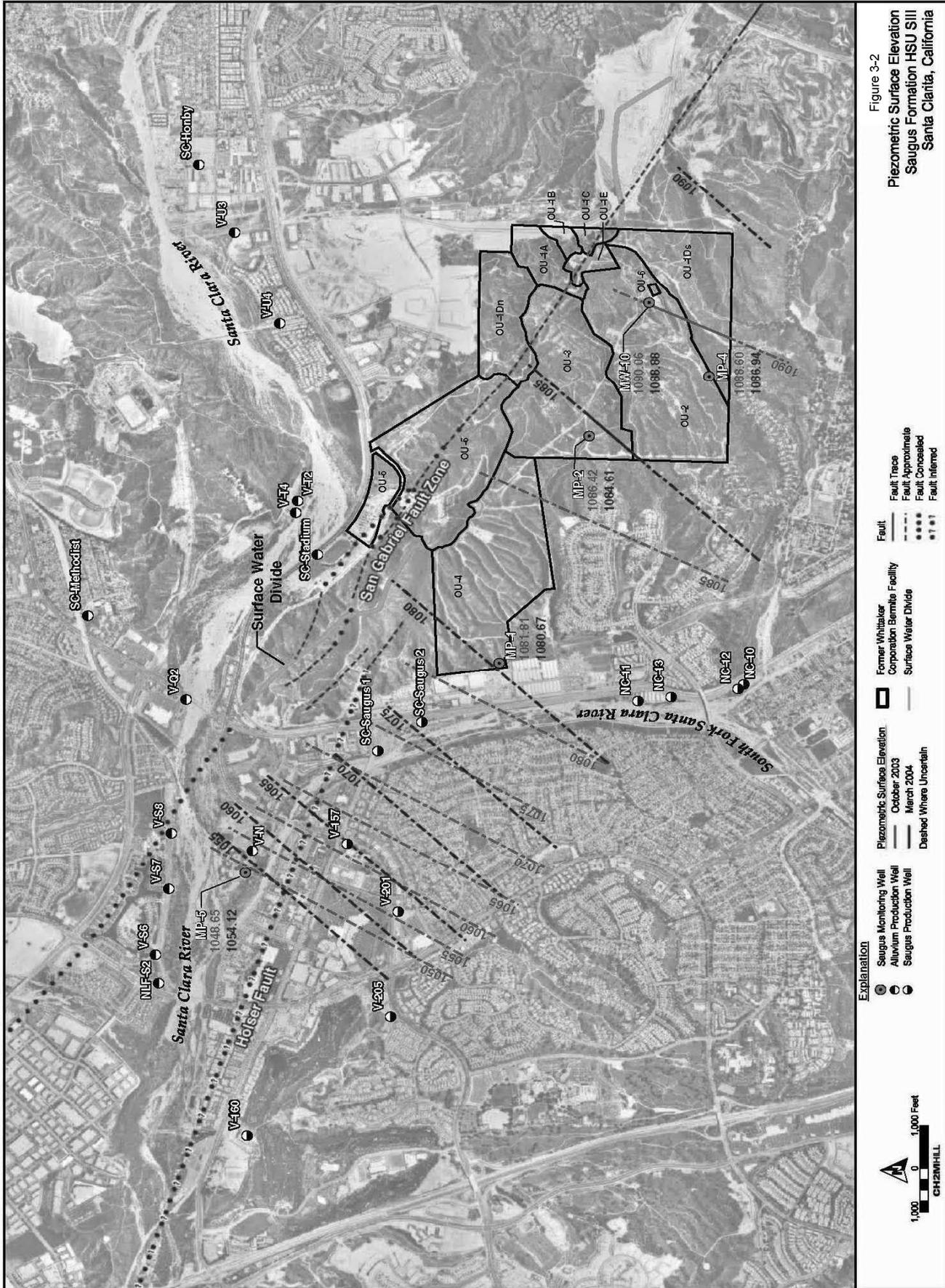


Figure 3-2
Piezometric Surface Elevation
Saugus Formation HSU S111
Santa Clarita, California



Table 3-12
Data from Neighboring Saugus Formation Wells

	MP-1A	CW-1C	MP-5	MP-2	MP-1	Saugus-1	Saugus-2
Final Depth	165 ft	568 ft	995 ft	1,330 ft	1,588 ft	1,640 ft	1,612 ft
Metals (in µg/L)							
Arsenic	5.4	10	5.5	13 (U)	5.9	1.0 (U)	1.0 (U)
Boron	71	23.1	279	157	232	324	316
Calcium	61,350	23,100	111,000	27,650	43,850	101,000	81,000
Magnesium	19,300	9,475	24,000	6,100	10,060	21,000	18,000
Manganese	9.6	101	66.7	44	11.9	12	10
Potassium	3,235	1,795	3,870	2,675	2,205	2,400	2,400
Inorganics (in mg/L)							
Chloride	24.7	35.2	50.1	33.6	29	24	14.4
Fluoride	0.216	0.400	0.483	0.304	0.336	0.27	0.29
Nitrate + Nitrite (as N)	8.4	1.3	7.0	0.1 (U)	0.66	3.5	2.6
Sulfate	96.6	6.26	165	80.9	61.0	194	106
General properties (in mg/L)							
Bicarbonate Alkalinity	130	125	275	91	161	206	215
TDS	428	391	655	333	331	569	393
Oxidizers (in µg/L)							
Perchlorate	20.2	5.95	11.8	24,840	3.4	40	60
VOCs (in µg/L)							
PCE	2.9	0.57	0.5 (U)	132	0.5 (U)	0.5 (U)	0.5 (U)
TCE	0.5 (U)	0.5 (U)	11.8	440	0.5 (U)	1.0	0.5 (U)

- * Analyte positively identified; the reported concentration is approximate
- ** Above Maximum Calibration Range
- U Analyte was non-detect. The analytical limit has been inserted here
- NT Analyte was not tested.
- ¹ This list of contaminants is a combination of historical water quality data components (Table 3-4) and compounds identified as part of source water assessment (Section 3.5.2).





Data from MP-2 shows very high concentrations of perchlorate, PCE, and TCE and average or below average concentrations of all other contaminants. These elevated levels are due to the location of this well within the Bermite facility and, although this monitoring well is upgradient of the Saugus 1 and 2, preliminary capture zone analysis indicates that concentrations seen here would take more than 50 years to migrate to the Saugus production wells.

Perchlorate was detected in the Saugus Formation offsite as far west as MP-5. PCE and TCE were detected at elevated levels predominantly at depths less than 500 feet and at concentrations less than the MCL. Levels of TCE above the MCL were detected at MP-5. The hydrogeology study shows that, in similar hydrostatic units, significant concentrations of TCE are only detected outside of the 20 year capture zone of Saugus 1 and 2 and will take a minimum of 20 years to migrate to the production wells.

The data included herein shows that higher concentrations of perchlorate, TCE, and PCE are seen in the shallower wells while those at greater depths tend to remain within regulatory limits. The report developed by CH2MHILL stipulates that the concentrations detected from the Saugus Formation monitoring wells as part of this study seem to show the groundwater impact is now mostly limited to the upper portion of the Saugus Formation. Available data suggests hydrostatic units SI and SII were impacted, which translates to depths of approximately 200 feet of saturated thickness onsite and more than 900 feet deep offsite. The Saugus well water is drawn from HSUs SIII through SVII, greater than 500 feet deep. VOC concentrations appear to be limited to the shallower upper portion of the Saugus Formation and are unlikely to impact the Saugus wells in the near future. Furthermore, the CH2MHILL report concluded that, although there are elevated levels of perchlorate in Saugus 1 and Saugus 2, it is unlikely that these concentrations would increase further over time, in particular with clean-up activities in place, and the current water quality used for this analysis is valid. Monitoring data shall continue to be collected from the shallower wells to confirm these findings.

All data collected as part of the USACE study can be found in Appendix G.

3.6.2 Environ Testing

The last collection and analysis of water samples completed by the USACE occurred in July 2004. Following this event, Environ installed three wells in Magic Mountain Parkway, east of Saugus 1, in November 2004 in response to the California DTSC remedial action order dated November 2002. The timing of the well installation was to get them in place prior to the proposed pumping test for further evaluation of the Saugus Formation Wells. These wells are intended for Saugus Production well sentinel monitoring and are discussed further in Chapter 4. This data is summarized below in Table 3-13.





Table 3-13
Data from AL-12A, AL-12B, and SG1

	AL-12A		AL-12B			SG1-HSU1	
Aquifer	Alluvium		Alluvium			Saugus	
Final Depth	60-80 feet		180-190 feet			265-285 feet	
	11/23/04	1/18/05	11/24/04	1/18/05	1/18/05	11/23/04	1/18/05
Oxidizers (in µg/L)							
Perchlorate	<4.0	<4.0	31.6	10.0	9.2	<4.0	<4.0
VOCs (in µg/L)							
PCE	<1.0	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
TCE	<1.0	<0.5	7.0	2.4	2.7	<1.0	<0.5

Two of these wells are sourced from the Alluvium Aquifer. The shallower depth of the Alluvium Aquifer would explain the increased TCE concentrations, and the data recorded more recently shows levels far below that particular MCL following a period of time for percolation. In terms of perchlorate and PCE, the data collected for the Saugus Formation Wells and used to develop the design treatment process represents a more conservative scenario. This complete set of data can be found in Appendix H.

Following this initial well installation, Environ has been charged with completing the quarterly monitoring for the Whittaker-Bermite Corporation. A quarterly monitoring report, issued in October 2007, was reviewed in the continued effort to validate our design basis and ensure our raw water quality reflects current conditions. The document described a groundwater monitoring event performed during the period of February 1 and February 28, 2007, summarized historical data from 2004 to 2006, and included chemical analysis of 141 wells.

A review of the 2007 first quarter monitoring report shows that higher concentrations of TCE were seen in the shallower, Alluvium sourced wells, the well adjacent yet at a shallower depth to Saugus 1 and sourced by the Saugus Formation have only shown one positive sample for TCE which is well within the MCL range. This 2007 first quarter monitoring also shows reductions in perchlorate concentrations in the Saugus Formation in the last three years. Table 3-14 presents a summary of the updated wells from this area.

Based on this additional data, it is still assumed that the water quality used in the treatment evaluation represents a conservative design basis in compliance with all regulations. This data also confirms that, while VOCs are not a concern at the Saugus production wells at this time, concentrations of VOCs in some of the shallower wells continue to increase and chemical analysis should continue in the area to monitor progress of remediation for the Whittaker-Bermite facility. It should be noted that additional data was not collected from the USACE monitoring wells as part of this monitoring report.





Table 3-14
2007 First Quarter Monitoring from AL-12A, AL-12B, and SG1

	1/19/06	5/2/06	8/22/06	11/8/06	2/21/07
AL-12A					
Perchlorate	5.5	4.9	6.8	<4.0	<4.0
PCE	<1.0	<1.0	<1.0	<1.0	<1.0
TCE	<1.0	<1.0	<1.0	<1.0	<1.0
AL-12B					
Perchlorate	22.1	21.8	11.3	22.0	15.6
PCE	<5.0	<1.0	<1.0	<2.5	<1.0
TCE	26	7.8	13	67	21
SG1-HSU1					
Perchlorate	5.6	<4.0	4.0	<4.0	<4.0
PCE	<1.0	<1.0	<1.0	<1.0	<1.0
TCE	<1.0	<1.0	<1.0	<1.0	1.0

3.7 Variability of Contaminant Concentrations

This section returns to assessment specification of the Saugus production wells. It considers those contaminants detected in the Saugus wells that may reduce with time or after the initiation of regular pumping.

3.7.1 Variation of Concentration with Time

Steady state conditions were determined by measuring pH and conductivity over the period of pumping as indicated in the sampling conditions table. Raw water samples were collected every 15 minutes and analyzed on-site for pH and conductivity. Results for Saugus 1 and Saugus 2 are illustrated on Figures 3-3 and 3-5 showing the variation of these measurements over time. Results showed that conductivity and pH readings did not vary more than 5 percent and by 0.2 pH units, respectively.

In addition, dissolved oxygen (DO) content and turbidity were analyzed for their progress towards steady state. This data for Saugus 1 and Saugus 2 is represented on Figures 3-4 and 3-6. DO levels exhibited a 5 percent fluctuation within half an hour of pumping initialization and presented no concentration spikes when pumping was paused. Turbidity, however, required in excess of an hour to reach a steady state and exhibited great variations in both wells whenever pumping was ceased and restarted.

3.7.2 Variation of Concentration with Pumping Rate

The effect of purging of non-operational wells on selected parameters is illustrated on Figure 3-7. In most cases, purging over time was observed to decrease the concentration of a constituent to steady-state values. In the case of anions, purging seemed to have the opposite effect. Figure 3-7 also shows an increase of nitrate and sulfate with purge time. At no time,





however, did these concentrations meet or exceed water quality requirements. Similar results were observed for perchlorate in Saugus 2 well (results not shown), with concentrations ranging from non-detect in Purge A to 60 µg/L in Purge B Initial and Final Samples. Purge B Initial and Final samples contained similar concentrations of most constituents. Pump and treat methods are discussed in Section 4.3.1 of this report.

Figure 3-3
Variation of pH and Conductivity in Saugus 1 over time

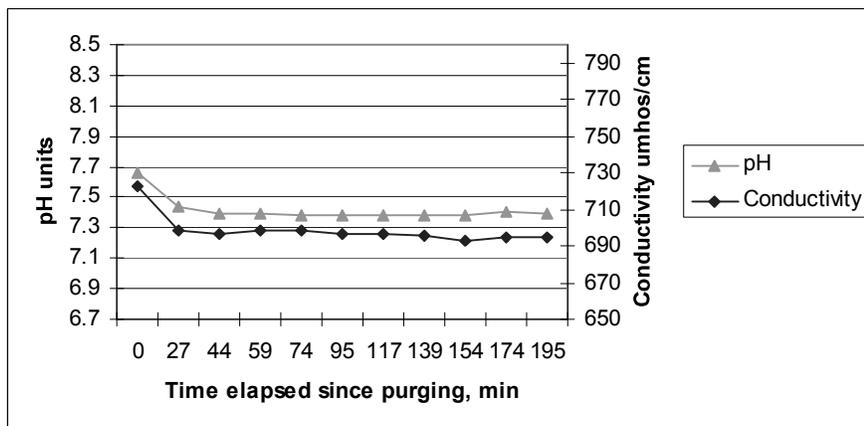


Figure 3-4
Variation of DO and Turbidity in Saugus 1 over time

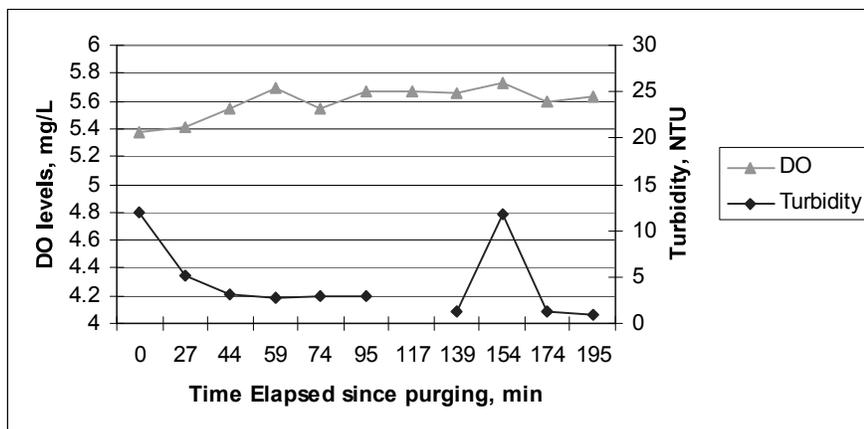




Figure 3-5
Variation of pH and Conductivity in Saugus 2 over time

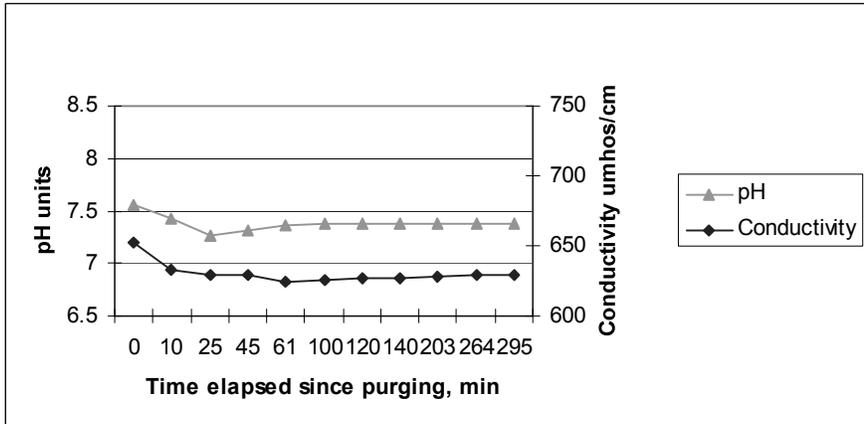


Figure 3-6
Variation of DO and Turbidity in Saugus 2 over time

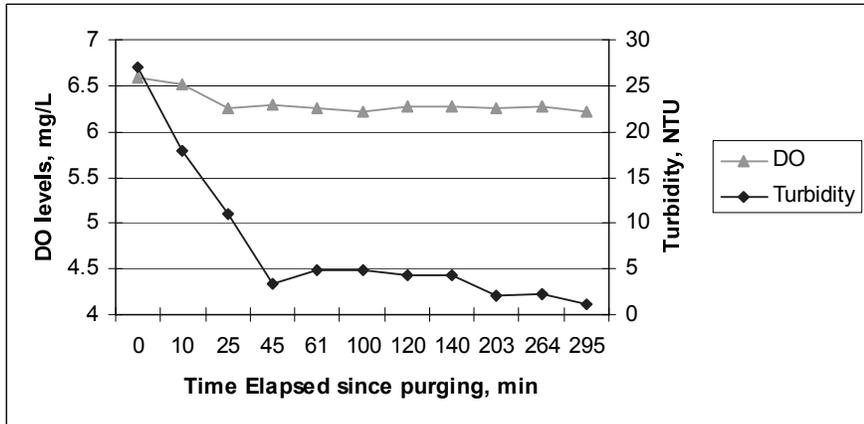
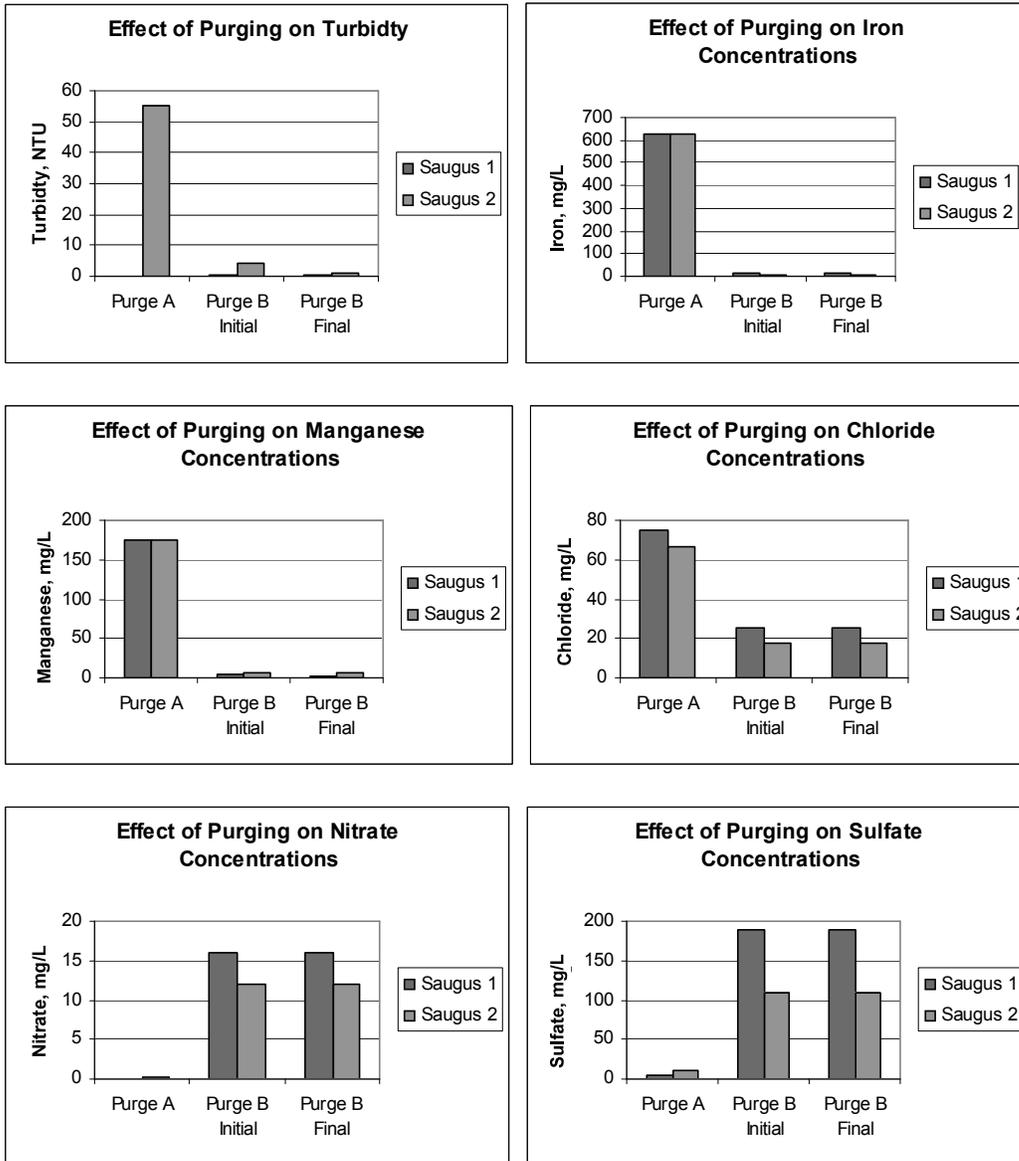




Figure 3-7
Variation of pH and Conductivity in Saugus 1 over time





3.8 Summary

Perchlorate-impacted wells Saugus 1 and 2 were sampled in May and June 2003 for an extensive list of potential contaminants. The sampling program allowed a full analysis of both water sources to be completed. The data collected as part of this program was validated using water quality information collected from monitoring wells across the Santa Clarita Valley.

These groundwater wells can be characterized as having moderately buffered, hard water that contains moderate concentrations of dissolved solids and average DO. Groundwater from Saugus 1 and Saugus 2 is low in total organic content and has moderate levels of AOC. In some cases, the TDS concentrations are higher than the SMCL. However, the MCL for dissolved solids is never exceeded. Although the amount of nitrates and sulfates in the water fluctuates, their respective MCLs are never exceeded.

One contaminant was identified to be targeted in the process treatment design. Perchlorate is the only contaminant to exceed its drinking water regulatory limit in both wells, and, although, HPCs were noted at high levels in at least one of the wells, this is a marker for an increase in disinfection rather than a failure to meet water quality criteria.

Explosives and N-nitrosodimethylamine (NDMA) were not detected in the raw waters sampled.





4.0 SOURCE PROTECTION PLAN

4.1 Overview

This chapter presents recommendations for a Source Protection Plan. Source protection goals are identified, and a perchlorate management plan is discussed, including pump and treat for containment of the perchlorate plume, long-term monitoring, and Bermite site remediation. In addition, existing programs to protect water supplies are described. Current local management actions are also discussed.

4.2 Source Protection Plan Objectives

In order for source protection to be successful, the goals of the program must consider both short-term and long-term measures and involve a variety of stakeholders.

Long-term goals include:

- ▼ Reducing the risk of groundwater contamination associated with identified PCAs and future development.
- ▼ Educating business and industry about the vulnerability of groundwater to contamination and what they can do to help protect the resource.
- ▼ Promoting the proper disposal of hazardous wastes.
- ▼ Implementing already developed remediation plans.

Short-term goals include:

- ▼ Tracking existing contaminant plumes, containing and treating them to protect public health.
- ▼ Developing remediation plans.
- ▼ Ensuring that resources are directed to the highest priority projects so that water quality improvements are obtained as soon as possible.
- ▼ Developing agreements with other agencies that have control over land use, wastewater collection, and others with regulatory authority that could be utilized to help protect groundwater quality.

Stakeholders' goals may include:

- ▼ Restoring lost production capacity.
- ▼ Incorporating protection of water quality into Groundwater Management Plans.
- ▼ Minimizing the economic impact of the proposed BMPs.





4.3 Perchlorate Management Plan

The perchlorate management plan consists of three key elements:

1. Pumping from Saugus 1 and Saugus 2 to contain perchlorate, treating the water, and entering the potable water conveyance system.
2. Sentinel monitoring to provide early warning of any changes that might occur in groundwater quality upgradient of the containment wells.
3. Bermite site remediation.

4.3.1 Pump and Treat

The containment plan consists of pumping from Saugus 1 and Saugus 2 on a nearly continuous basis at a rate of 1,200 gpm from each well. The groundwater pumped from these wells would then be treated at a central location to remove perchlorate prior to entering the potable water conveyance system. The treated water would be pumped into the distribution system at a location adjacent to the Rio Vista Intake Pump Station (owned and operated by the Agency) for subsequent distribution, to help meet water demands. In addition to these containment operations, one perchlorate-impacted production well Valencia Water Company, VWC-157, located downgradient of Saugus 1 and Saugus 2, was destroyed, rather than being used for containment. Another impacted well, NCWD-11 would not be needed to meet the containment objectives and might be destroyed. The containment plan is discussed in detail in *Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property* (CH2MHill, December 2004).

The containment evaluation for the impacted Saugus Formation production wells was performed using the regional groundwater flow model for the Santa Clarita Valley (Regional Model). The Regional Model's construction and calibration are discussed in detail in *Regional Groundwater Flow Model for the Santa Clarita Valley: Model Development and Calibration* (CH2MHill, February 2004).

The major conclusions from the modeling analysis are as follows:

1. Operating production wells Saugus 1 and Saugus 2 at rates of 1,100 gpm each on a nearly continual basis would effectively contain perchlorate migrating westward in the Saugus Formation from the Whittaker-Bermite property, and will also contain perchlorate that is present at Saugus Formation monitoring well MP-5 and production well VWC-157.
2. Operating production wells Saugus 1 and Saugus 2 at rates as low as 700 to 800 gpm each would not fully contain groundwater that is migrating westward from the Whittaker-Bermite property. Additionally, if these wells were operated at 1,000 gpm each, perchlorate present in the Saugus Formation at wells MP-5 and VWC-157 would not be captured and would instead migrate to existing nonimpacted wells VWC-160 and VWC-205.





3. No new production wells would be needed in the Saugus Formation to meet the perchlorate containment objectives.
4. Impacted well NC-11 would not be a required component of the containment program.
5. Use of other water supplies in lieu of pumping at Saugus 1 and Saugus 2 would likely be detrimental to the long-term quality of groundwater in the Saugus Formation. Pumping at these two wells would be necessary to prevent migration of perchlorate to other portions of the Saugus Formation.
6. The pumping plan for Saugus 1 and Saugus 2 could contain perchlorate that is migrating in the Alluvial Aquifer from the northern portion of the Whittaker-Bermite property, including perchlorate detected in the Alluvial Aquifer at and south of Bouquet Junction. Groundwater monitoring would be needed to evaluate the effect of pumping on perchlorate.
7. The operational plan for the impacted production wells would not cause detrimental short-term or long-term effects to the groundwater and surface water resources of the Santa Clarita Valley. In particular, the modeling analysis indicated that short- and long-term variability in local rainfall and streamflows is the predominant cause of fluctuating groundwater elevations, river flows, and groundwater storage volumes. This is indicated by figures in the CH2MHill report, which together show that year-to-year changes in groundwater recharge volumes and groundwater storage volumes are much greater than year-to-year fluctuations in pumping. Compared to local hydrology, implementation of the operational pumping plan for the valley, including the planned use of wells Saugus 1 and Saugus 2, would have much less influence on the water resources of the valley.

4.3.2 Sentinel Monitoring

DPH Policy Memo 97-005 requires the implementation of sentinel monitoring in groundwater upgradient of impacted wells to provide early warning of any unanticipated changes in groundwater quality. Based on this policy, the sentinel monitoring plan for the impacted Saugus Formation production wells is intended to provide advance warning of concentration changes or the presence of additional contaminants in groundwater that might affect the perchlorate treatment processes or require additional treatment. Additionally, groundwater elevation and pumping data would be collected under the sentinel monitoring plan to evaluate the effectiveness of the perchlorate containment plan described in the report (*Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property, prepared by CH2MHill, December 2004*).

Information in the 2004 report shows that the monitoring well network for the sentinel monitoring program would monitor both the Alluvial Aquifer and the Saugus Formation upgradient of each production well. Monitoring would occur at eight wells, three of which are new installations. Well locations were selected according to the following considerations:

- ▼ Locating sentinel wells sufficient distances from the production well to allow adequate time to respond to significant concentration changes.





- ▼ Using existing monitoring wells, to the degree possible.
- ▼ Locating new monitoring wells in areas where site access will not cause undue restrictions on drilling, installing, and monitoring of new sentinel monitoring wells.

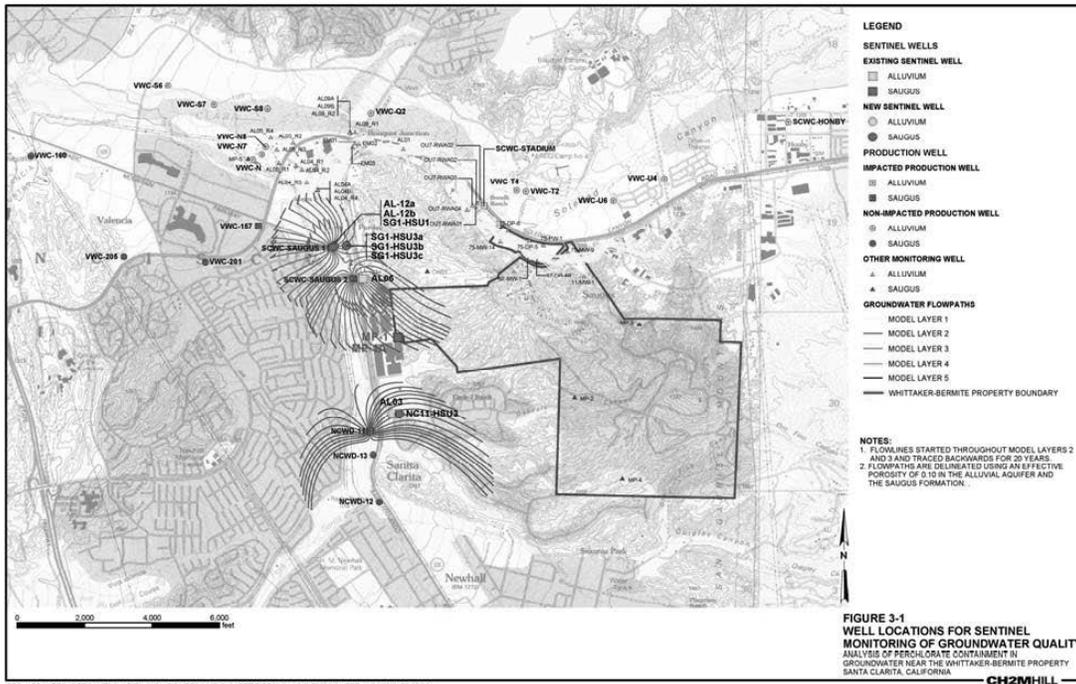
The 2004 report lists the chemical constituents to be monitored and the frequency at which monitoring should occur as the operational plan for the impacted wells is implemented. The program would focus primarily on monitoring for perchlorate, VOCs, nitrate, and sulfate, which are the constituents most likely to affect the treatment system if present at concentrations greater than those observed to date. General minerals (anions and cations) would be sampled on a biannual basis to provide geochemical information that may be helpful for evaluating groundwater migration in the vicinity of each impacted production well. However, nitrate and sulfate would be analyzed annually because of their potential influence on the ion-exchange treatment system, which is the system likely to be selected for perchlorate treatment at Saugus 1 and Saugus 2.

Performance monitoring of the pumping plan's ability to meet the containment objectives would be accomplished by monitoring groundwater levels and pumping rates during system startup and analyzing these data with the Regional Model. Water level monitoring would be conducted at each sentinel well that is completed in the Saugus Formation and at multi-port monitoring well MP-5, which is also completed in the Saugus Formation and is located downgradient of Saugus 1 and Saugus 2. Water levels would be measured at these wells during the start-up period for the containment system, as well as immediately prior to startup. The water level trends would then be compared with water level trends calculated from Regional Model simulations of the pumping at impacted and non-impacted wells during the initial startup period for the containment pumping plan. Together, the system monitoring data and the subsequent modeling analysis would be used to draw conclusions concerning the effectiveness of the containment plan and whether adjustments to the pumping operations at Saugus 1 and Saugus 2 are warranted. Details are provided in the report titled *Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property, prepared by CH2MHill, December 2004*. Figure 4-1 summarizes well locations for sentinel monitoring used in the region. Table 4-1 summarizes the sentinel monitoring wells to be used for the Saugus Production Wells.





Figure 4-1
Well Locations for Sentinel Monitoring of Groundwater Quality¹



¹ NCWD's well NC-11 was originally included in the scope of this project and sampling was performed. However, CLWA subsequently confirmed that this well was no currently needed for the perchlorate plume containment and, therefore, was not to be addressed for permitting at this time.

Table 4-1
Sentinel Monitoring Well Description

Sentinel Monitoring Well Name	Aquifer and Location	Status	Capture Zone
<i>SCWD – Saugus 1 Production Well</i>			
AL-12A	Alluvium: Newly Constructed Well in Magic Mountain	Existing	1 year
AL-12B	Alluvium: Parkway North of Saugus 1; Newly Constructed	Existing	1 year
SG1-HSU1	Saugus (S-1 Unit): Adjacent to new alluvium well; Newly Constructed	Existing	1 year
SG1-HSU3a SG1-HSU3b SG1-HSU3c	Saugus (S-III Unit): NLF land north of SCWD – Saugus 1	New	1 year
<i>SCWD – Saugus 2 Production Well</i>			
AL06	Alluvium	Existing	10 year
MP1	Saugus: ports 1 and 2	Existing	10 year





Table 4-2 provides a preliminary sampling schedule for the Sentinel Monitoring Wells and the parameters to be tested for.

**Table 4-2
 Sentinel Monitoring Well Sampling Schedule**

Analytical Parameter	Frequency of Sampling			
	Initially	Semiannually	Annually	Biannually
TIC Analysis (USEPA Method 625)*			X	
<i>Organic Constituents</i>				
Perchlorate	X	X		
VOCs	X	X		
1,2,4-Trimethyl Benzene	X	X		
MTBE	X	X		
<i>General Minerals</i>				
Aluminum	X			X
Bicarbonate/Alkalinity	X			X
Calcium	X			X
Chloride	X			X
Total Phosphorus	X			X
Potassium	X			X
Fe	X			X
Magnesium	X			X
Manganese	X			X
Sodium	X			X
Sulfate	X		X	
Nitrate	X		X	
Ammonia	X			X
Chromium (III and VI)			X	

* USEPA Method 625 is a VOC scan carried out to identify peaks in any VOCs. In the event of a positive scan, a reanalysis shall be completed using the standard of the suspected compound. This test is used to identify any tentatively identified or non-target compounds. For the purposes of the Saugus production well sampling program all non-target or tentatively identified compounds are collectively referred to as TICs, as, to date, all these compounds are routinely found to be non-detect.

4.3.3 Bermite Site Remediation

The inactive 996 acre Whittaker Bermite facility is located at 22116 West Soledad Canyon Road in Santa Clarita. Whittaker Corporation owns the Bermite facility and manufactured ordnance (military ammunition and equipment) there from 1967 to 1987. The site was divided into six soil-operable units (OU1 – OU6) by the DTSC based largely on topographic features. An RAP was prepared by CDM of behalf of the Whittaker Corporation pursuant to the requirements set forth in the California Health and Safety Code that concerns just the remediation of shallow soils in the area designated OU1. This RAP was reviewed by DTSC, revised per their comments, and approved by DTSC. Per the summary report for month of November 2008 issued in December by AMEC Geomatrix, a soil-vapor extraction (SVE) system is currently operational in OU1 and





will remain so until halogenated volatile organic compound levels are eliminated or reduced to appropriate levels or asymptotic levels are reached. Figure 4-2 presents the location of each operable unit.

The SVE program in operation in OU1 is an integral part of a comprehensive site cleanup plan with the primary purpose of ensuring that the remediation of a known source is commenced on a timely basis. The scope of the initial project is focused on the area designated OU1 and is restricted to shallow soils that can potentially be removed through excavation. More global remedial strategies for deeper soils and the other operable units on the Whittaker Bermite site are have been prepared. CDM has submitted an RAP for OU2 through OU6. This RAP was reviewed by DTSC. Comments have been received and the revised RAP is expected to be submitted in January 2009.

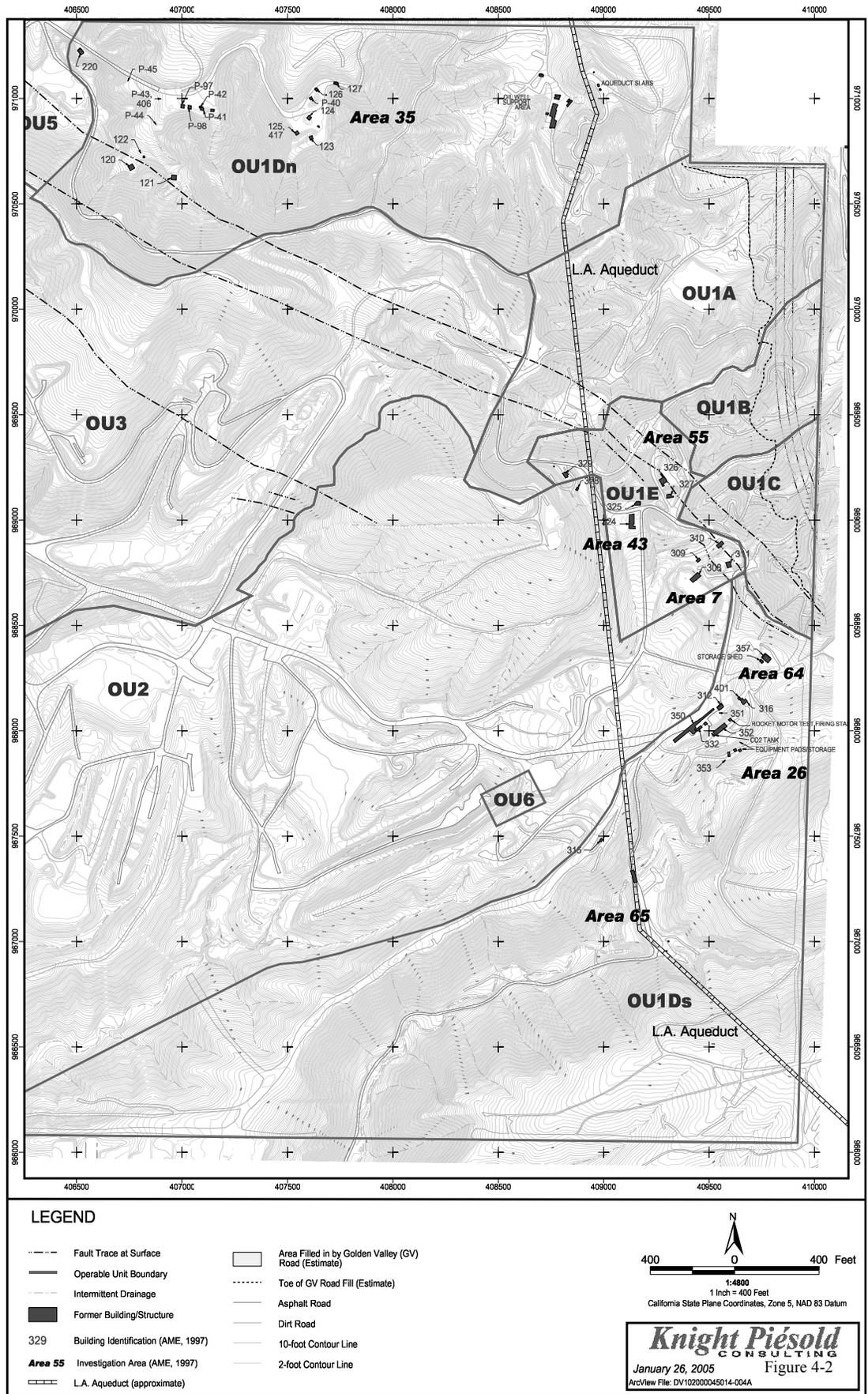
The chemicals of potential concern encountered in OU1 were perchlorate and several halogenated volatile organic compounds (HVOCs); risk-based cleanup levels were determined for each of these chemicals, see Table 4-3 from the OU1 RAP.

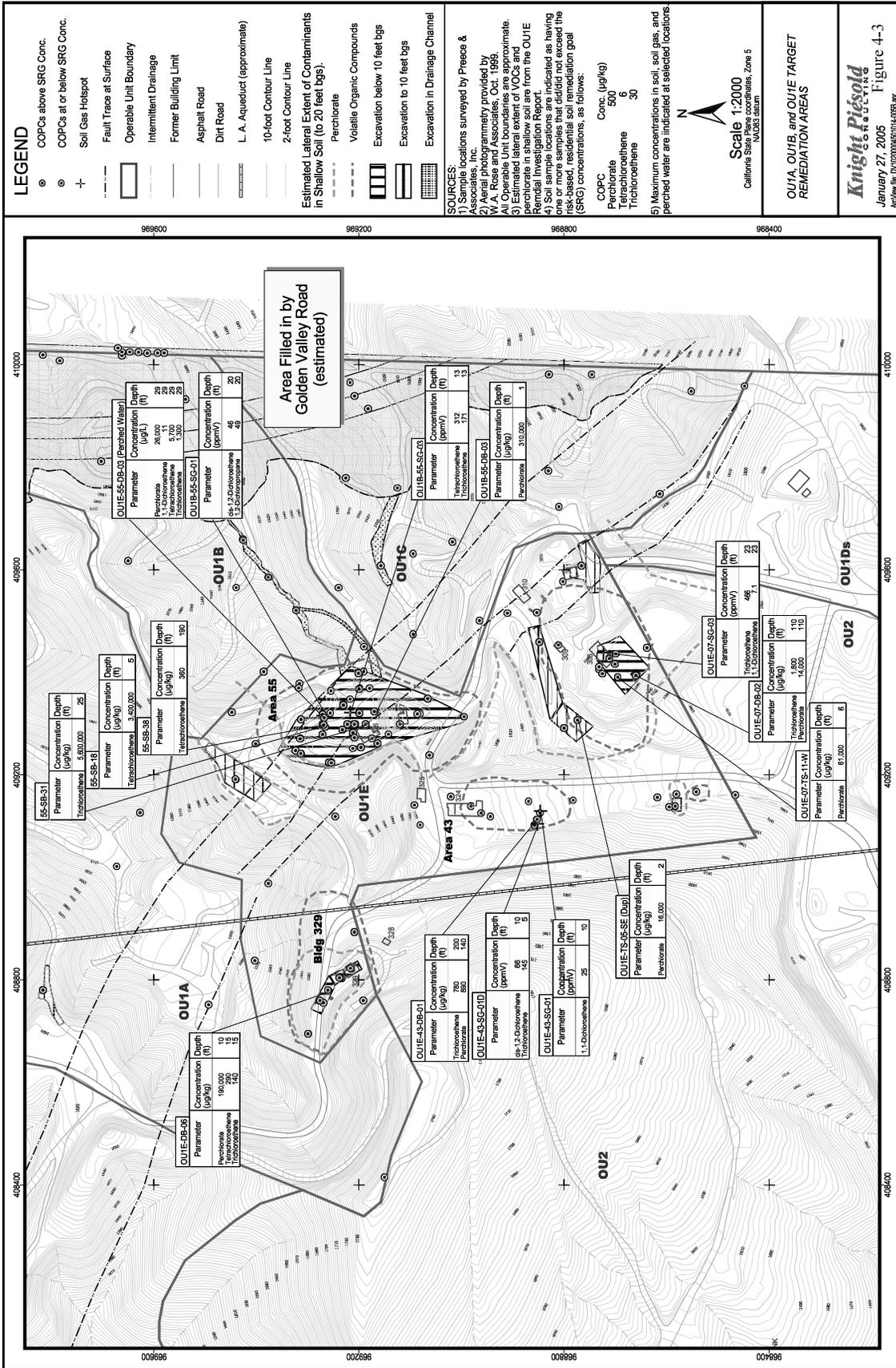
**Table 4-3
 Risk Based Screening Levels (RBSL)**

Compound	Risk-Based Screening Levels for Soil Matrix and Soil Gas	Basis for RBSL
Perchlorate	Soil: 500 ug/kg in top ten feet of soil Soil Gas: Perchlorate is not a concern in soil gas	Mitigate potential future threat to children associated with consumption of home grown produce
1,1-dichloroethene	Soil: 379 ug/kg in top ten feet of soil Soil Gas: 68 ug/L in top five feet of soil	For soil matrix, mitigate potential future threat to workers that disturb the soils. For soil gas, mitigate future threat to children associated with vapor phase migration into on-site residences
1,2-dichloropropane	Soil: 330 ug/kg in top ten feet of soil Soil Gas: 0.25 ug/L in top five feet of soil	For soil matrix, mitigate potential future threat to workers that disturb the soils. For soil gas, mitigate future threat to children associated with vapor phase migration into on-site residences
tetrachloroethene	Soil: 150 ug/kg in top ten feet of soil Soil Gas: 0.45 ug/L in top five feet of soil	For soil matrix, mitigate potential future threat to workers that disturb the soils. For soil gas, mitigate future threat to children associated with vapor phase migration into on-site residences
trichloroethene	Soil: 1,500 ug/kg in top ten feet of soil Soil Gas: 1.2 ug/L in top five feet of soil	For soil matrix, mitigate potential future threat to workers that disturb the soils. For soil gas, mitigate future threat to children associated with vapor phase migration into on-site residences

Additionally, OU1 was further broken into sections, and six discrete areas associated with ordnance manufacturing were defined and targeted for remediation. (See Figure 4-3 and Table 4-4 for detailed data on and location of target remediation areas.)









**Table 4-4
 Remediation Areas**

Area Name/ Number/ Location	Prior Use	Chemical of Potential Concern	Depth Below Ground Surface (ft)	Target Area/ Over-excavation Area ¹	
				Volume (in-place cy)	Approx. Surface Area (ft ²)
Area 43	mixing/blending	HVOCs	25	17,000/24,000	18,000/53,000
Area 7 (2)	mixing/blending	HVOCs/Perchlorate	10 and 140	3,000/--	6,000/6,000
Area 55	mixing/blending	HVOCs/Perchlorate	50 to 90	96,000/157,000	38,000/145,000
Bldg 329	mixing/blending	HVOCs/Perchlorate	10 to 20	1,000/11,000	3,000/25,000
Area 26	parts cleaning	Perchlorate	25 to 70	15,000/159,000	7,000/160,000
Surface scrapes (including drainage bottoms)	material transport	Perchlorate	4 to 15	18,000/--	88,000/88,000
TOTAL				150,000/351,000	160,000/477,000

¹ Over-excavation area volume includes only the volume of clean over-excavated material; over-excavation area surface area includes the total surface area inside the footprint of the over excavation area, which includes the target area.

In the development of the RAP for OU1, alternative remedial technologies and methods of handling excavated soils were discussed and weighted based on several criteria including overall protection of human health and environment and the long-term effectiveness of each technology. The combination of SVE, and excavation with a variety of off-site disposal and on-site treatment alternatives was identified as the optimal approach for remediation of OU1 soils. On-site soil remediation activities are operated by Whittaker Corporation under regulatory oversight by DTSC.

In Area 43, which contains just VOCs, source-area remediation would be conducted in situ using SVE. The SVE system will operate until VOC levels in soil gas are reduced to risk-based cleanup goals.

In Areas 7, 55, and 329, which contain both VOCs and perchlorate, source area remediation will be conducted in two steps. First, the soils are being treated in situ by SVE to remove VOCs until soil levels are reduced to risk-based cleanup goals. Following SVE, shallow soils containing perchlorate would be excavated and replaced with clean fill. The excavations will be extended laterally and vertically to remove all soils exceeding risk-based cleanup levels or until practical limits of excavation are reached. In general, the practical limit of vertical excavation is considered to be 40 feet from grade.

In Area 26 and the drainage bottoms, which contain just perchlorate, source area remediation would be accomplished by excavating soils as in above areas.

Four remedial strategies were identified as the optimal approach for managing excavated soils:

1. on-site treatment by anaerobic bioremediation





2. on-site treatment by soil washing
3. on-site treatment by chemical oxidation
4. off-site disposal without treatment

A combination of these alternatives is being used to reduce perchlorate to below the current detection limit and reduce VOCs to the most sensitive risk-based cleanup goals. Clean fill for backfilling the excavations would be borrowed from other areas of the site or would be on-site treated soil.

For the water perspective, an interim RAP was prepared by Kennedy/Jenks Consultants of behalf of the Water Purveyors pursuant to the requirements set forth in the California Health and Safety Code that develops a preferred alternative that will contain perchlorate impacts in the Saugus Formation. The remediation area for groundwater, designated OU7, encompasses offsite areas where Saugus Formation groundwater has been impacted by chemicals released from former Facility operations, including the impacted production wells Saugus 1 and Saugus 2. It is expected that the measures described in the Interim RAP will be a component of the overall groundwater remediation plan being developed for OU7.

Several General Response Actions (GRAs) were considered including a No Action alternative; a range of potential technologies and process options were identified for implementation of each GRA. An evaluation of the technologies and process options was conducted based on the screening criteria of effectiveness, implementability, and the relative range of costs.

1. Effectiveness addresses the ability of the technology to meet the RAP requirements
2. Implementability is an evaluation of the site-specific technical and administrative feasibility factors involved in applying the technology.
3. Overall costs were evaluated based on the components of both capital costs and long-term operation and maintenance (O&M) costs.

The Interim RAP proposes pumping groundwater at a constant flowrate of 1,100 gpm from each of Wells Saugus 1 and 2, removing perchlorate from the groundwater using a single-pass ion exchange system, followed by disinfection and pumping the treated groundwater into an existing 84-inch treated potable water line for blending and distribution. This RAP provides containment for the plume of perchlorate in the Saugus Formation west of the Facility and satisfies the requirements for treatment of “extremely impaired” groundwater in accordance with DPH Policy Memo 97-005.

Since the preparation of the Interim RAP, a technology screening feasibility study for OU7 has been submitted by Whittaker Corporation and approved by DTSC. The work plan for Saugus Formation pilot remediation has been reviewed by DTSC and their comments currently being incorporated. The implementation of the Saugus groundwater containment pilot plan is expected to occur this year.





4.4 Ongoing Programs

Numerous existing federal, state, and local programs are aimed at protecting water supplies. Similarly, many groups oversee the regulation, inventory, and clean up of contaminant sources and spills. The following outlines some of the programs that can be used by the Agency to help prevent future contamination of the source water.

4.4.1 Federal Programs

Six primary federal laws are designed to help protect groundwater quality by setting standards or permitting uses and activities. The laws, their key elements, and the responsible agencies are identified in Table 4-5.

**Table 4-5
 Key Federal Laws**

Act	Key Elements	Responsible Regulatory Agencies
Safe Drinking Water Act (SDWA)	Sets MCLs in drinking water and establishes flexible protection programs.	USEPA Region 9, California DPH
Clean Water Act/Program (CWA)	Sets standards for allowable pollutant discharges to surface water or groundwater.	USEPA Region 9, Los Angeles RWQCB
RCRA	Regulates the transport, storage, treatment and disposal of hazardous wastes. Establishes the Federal UST Program.	USEPA Region 9, Los Angeles RWQCB, Los Angeles County Health Department, Fire Districts and Depts., State DTSC
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund	Regulates clean up of contamination from hazardous substances.	DTSC, USEPA, RWQCB
The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)	Regulates pesticide sale and use and promotes alternative pest control strategies.	Department of Pesticide Regulation
The Toxic Substances Control Act (TSCA)	Regulates manufactured chemicals. Protects public health and the environment from risks from the improper handling, storage, transport, and disposal of hazardous substances.	DTSC, USEPA

It is important to note that, under the SDWA, a grant for states to develop groundwater protection programs has been established under section 1429. The USEPA has \$15 million authorized for state grants through year 2003. Between 2000 and 2002, USEPA devoted approximately 38 percent of its yearly budget to ensure that drinking water is safe. This funding includes state and tribal government grants that equal approximately \$1.2 million dollars annually (USEPA, 2003). Since 2003, the USEPA has continued to promote applications for Funding for Groundwater Protection.





In addition to the regulations summarized in Table 4-4, the proposed Ground Water Rule (GWR) will affect communities that use groundwater as a source of drinking water (either for their entire supply or a portion of their supply). Public water systems that use groundwater under the influence (GWUI) of surface water, or that blend groundwater with surface water prior to treatment, are not affected. A key aspect of the GWR is whether shallow groundwater supplies are susceptible to microbial contamination. These supplies will be termed “vulnerable,” and disinfection will be required. State-led sanitary surveys will determine if disinfection is necessary.

Key provisions of the proposed GWR are as follows:

- ▼ Sanitary Surveys; to be conducted by the state every three years.
- ▼ Hydrogeologic Sensitivity Assessment; will apply only to those systems that do not provide disinfection/treatment to achieve at least 4-log removal/inactivation of viruses.
- ▼ Source Water Monitoring; will apply only to those systems that are sensitive or have contamination in their distribution system (“triggered monitoring”) and do not provide disinfection/treatment to achieve at least 4-log virus removal/inactivation viruses.
- ▼ Corrective Actions; necessary only for systems found to have significant deficiencies or fecal contamination in the source water.
- ▼ Compliance Monitoring; required reporting to the State regarding disinfection concentrations.

The GWR does apply to Saugus 1 and Saugus 2 if they are to be used as a potable drinking water source. CLWA will be required to complete a sanitary survey by 2012 to show no disinfection is required. Provided samples from Saugus 1 and 2 continue to maintain non-detect values of fecal and total coliforms, no disinfection will be required. They will also be required to complete regular source monitoring. Some additional federal codes that pertain to the protection of groundwater are listed in Table 4-6.





**Table 4-6
 Key Federal Codes That Pertain to the Protection of Groundwater**

Code	Name/Descriptive Title	Key Elements	Responsible Regulatory Agencies
40 Code of Federal Regulations (CFR) §112	Oil Pollution Prevention	Subjects facilities that store oil in amounts greater than a specified limit to oil prevention requirements and, therefore, requires these facilities to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.	USEPA (in agreement with Department of Interior and Department of Transportation)
40 CFR §112.20 and Oil Spill Prevention Regulations (OSPR) §8670 et seq.	Oil Pollution Act of 1990 and California Oil Spill Prevention and Response Act	Requires the implementation of a detailed Oil Spill Response Plan for facilities that store greater than one million gallons of oil and present a potential threat to the environment, in the event oil is released from the site.	USEPA
Health and Safety Code (H&SC) §25531 et seq.	Acutely Hazardous Materials (AHMs)	Requires facilities that use AHMs in amounts greater than certain thresholds to prepare a Risk Management Plan (RMP), under the requirements of the California Accidental Release Prevention Program (CalARP). RMPs identify proper design, handling, storage, record keeping, training, inspection, and spill response requirements for onsite AHM storage.	USEPA
Uniform Fire Code (UFC)	UFC	The UFC regulates the storage of hazardous materials and specifies design, construction, and operational requirements for containers, tanks, storage cabinets, and secondary contaminant areas, which are intended to reduce the risk of release and fire associated with handling and storage of hazardous materials.	National Fire Protection Association
CWA	Wastewater Discharge to Publicly Owned Treatment Works (POTW)	Generally requires facilities that discharge industrial wastewater to the local POTW to obtain an industrial wastewater discharge permit. Frequently requires facilities to prepare a Pollution Prevention Plan (PPP) as a part of their industrial wastewater discharge permit.	USEPA; State Water Resources Control Board (SWRCB); RWQCB

4.4.2 State Programs Related to Drinking Water Source Protection

State and county activities or programs involved with source water protection are listed below.

- ▼ Basin Planning
- ▼ National Pollutant Discharge Elimination System (NPDES) and Waste Discharge Requirements (WDRs)
- ▼ Waste Discharges to Land
- ▼ Hazardous Waste Facility Monitoring
- ▼ USTs
- ▼ Non-Point Source Pollution
- ▼ RCRA





- ▼ California Superfund Program
- ▼ Pesticide Use and Management
- ▼ Integrated Waste Management

Table 4-7 summarizes involved state agencies and their roles in the protection of source water supplies.

**Table 4-7
 State Agencies and Their Roles in the Protection of Source Water Supplies**

Agency	Departments / Boards	Responsibility
Health and Welfare	DPH-Division of Drinking Water and Environmental Management	Promotes public health through the regulation and monitoring of public water systems. Implements SDWA regulations.
Cal EPA	SWRCB	Formulates and controls State policy for water quality control, oversees the RWQCBs and administers California's system of water rights.
	RWQCBs	Adopt and implement water quality control policies and plans. Adopt Basin Plans and regulate point source discharges. Regulate waste discharge to land, carry out groundwater monitoring and surveillance programs, and develop regulations, standards, and guidelines pursuant to RCRA. Enforce UST regulations, Non-Point Source Pollution control measures, remediation of surface or groundwater pollution problems, and implementation of the Coastal Zone Act Reauthorization Amendment (CZARA).
	DTSC	Protects public health from the improper handling, storage, transport and disposal of hazardous substances including RCRA and Superfund implementation.
	Department of Pesticide Regulation	Regulates the use and management of pesticides to prevent pollution of surface water bodies and groundwater aquifers (through authorities in the: California Food and Agricultural Code, and California Pesticide Contamination Prevention Act).
	Waste Management Board	Oversees the treatment, storage, recycling, and disposal of solid waste by local agencies.
	OEHHA	Provides information to environmental regulators and the public about adverse health effects that result from environmental exposures to noninfectious agents and implements Prop. 65.
Resources Agency	Department of Water Resources (DWR)	Develops, conserves, and manages the water resources of the state. Its mission is to manage water resources in cooperation with other agencies to benefit the people of the State and to protect, restore and enhance the natural and human environments.
	Department of Conservation	Among other responsibilities, acts to prevent groundwater contamination due to the drilling, operation, maintenance, and abandonment of oil, gas and geothermal wells.
	Department of Forestry and Fire Protection	Protects against fires, responds to emergencies, and protects and enhances forest, range and watershed values.
	State Fire Marshal, Pipeline Safety Division	Regulates and enforces the safety of all intrastate hazardous liquid pipelines.
	Dept. of Food and Agriculture	Inventories agricultural operations, dairies, and animal feedlots. It also investigates water quality issues involving the accumulation of nitrates in groundwater basins.





Specific state codes and laws that affect groundwater protection at the state level are listed in Table 4-8.

**Table 4-8
 Specific State Codes and Laws That Affect Groundwater Protection¹**

Code	Name/Descriptive Title	Key Elements	Responsible Regulatory Agencies
22 California Code of Regulations (CCR) §66262	Hazardous Waste Generator Management Requirements	Hazardous waste generators required to properly manage hazardous waste and implement a Hazardous Waste Management Plan and Emergency Response Plan.	OEHHA; DTSC; DPH
22 CCR §66264	Hazardous Waste Facility Permit – RCRA Treatment, Storage, and Disposal	Requires facilities that treat, store, dispose hazardous waste to obtain a permit and implement a Hazardous Waste Management Plan and an Emergency Response Plan.	OEHHA; DTSC; DPH
22 CCR §67450	California Hazardous Waste Treatment – Permit By Rule/Tiered Permit	Facilities that treat hazardous waste, but exempt from obtaining a Hazardous Waste Facility Permit are required to obtain a Hazardous Waste Treatment Permit.	OEHHA; DTSC; DPH
SB-14 – H&SC §25244.12 et seq.	Hazardous Waste Source Reduction and Management Review Act of 1989	Requires facilities that generate hazardous waste above certain threshold quantities are required to prepare and implement a Hazardous Waste Source Reduction Plan.	DTSC; Certified Unified Program Agencies (CUPAS)
22 CCR §66280	Underground Storage Tank Registration	Requires facilities with USTs to register the tanks and appropriate regulatory agencies and obtain permits for the USTs.	OEHHA; DTSC; DPH
H&SC §25270 et seq.	Aboveground Petroleum Storage Tank Act	Requires a leak detection system to be installed on Aboveground Storage Tanks (ASTs) with capacity of 10,000 gallons or greater, if requested by the RWQCB.	RWQCB; SWRCB
H&SC §25503.5 et seq. and 40 CFR §355 and §370	California Business Plans and Superfund Amendments and Reauthorization Act (SARA) Title III – aka Emergency Planning and Community Right-to-Know Act of 1986	Requires facilities that handle or store specified hazardous materials to implement an Emergency Response Plan and report hazardous materials inventories.	State Fire Marshall
Clean Water Act and Porter/Cologne Act	California's Porter Cologne Water Quality Control Act for Surface Water Discharge	Requires NPDES Permits from facilities that discharge wastewater to surface water. Also, requires WDRs for activities that have the potential to impact surface or groundwater but that are not required to have NPDES Permits by the CWA.	RWQCB
Clean Water Act - Porter/Cologne Act: Stormwater Discharge-General Permit	Stormwater Discharge General Permit	Requires facilities that discharge stormwater associated with industrial activities to comply with the provisions of the General Stormwater Pollution Prevention Plan (SWPPP).	SWRCB; RWQCB

¹ For a description of roles of each state agency, see Table 4-7 on previous page.





4.4.2.1 Regional Water Quality Control Board Protection Plan

The Los Angeles RWQCB is responsible for the UST Program that deals with leaking fuel tanks. There may be other constituents of concern in the affected area, but the materials must be primarily fuel-related for the case to be handled under the UST Program. Most frequently, the leaks are associated with common neighborhood gasoline service stations.

In addition to the local water resources board, the SWRCB and the RWQCB oversee the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface water and groundwater regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science.

For initial implementation of the WMI, each RWQCB identified the watersheds in its region, prioritized water quality issues, and developed watershed management strategies. These strategies and the SWRCB’s overall coordinating approach to WMI are contained in the Integrated Plan for Implementation of the WMI, which is updated annually. In subsequent years, the Regional Boards have continued to build upon their early efforts to utilize this approach. The full version of the local WMI Chapter, including permit lists and total maximum daily load (TMDL) schedules, is available on the website; it outlines ongoing efforts to continue implementation of the WMI.

In addition to the WMI program, the state requires each RWQCB to perform a "triennial review" in order to identify high priority basin planning issues for the next three years. Staff completed a Basin Plan Review (the Board adopted Resolution No. 01-011 in May 2001), which prioritized basin planning issues. Basin Plan amendments are completed periodically as new standards, policies, and other information are developed. Table 4-9 provides a summary of the most recent amendments.

**Table 4-9
 Basin Plan Amendments**

Resolution Number	Summary
01-018	Revise Bacteria Objectives for Waters Designated for Water Contact Recreation
02-011	Update to Ammonia Objectives for Inland Surface Waters
03-001	Incorporate Authorization for Compliance Schedules in NPDES Permits
03-010	Suspend Recreational Beneficial Uses in Engineered Channels during Unsafe Wet Weather Conditions
Tentative Resolution Nov. 2003	Update the Chloride Objective for Reach 3 at Santa Paula in the Lower Santa Clara River
04-022	Update Saltwater Ammonia Objectives for Inland Surface Waters
Tentative Resolution Jan. 2003	Revise the Early Life Stage Provision of the Freshwater Ammonia Objectives for Inland Surface Waters
Tentative Resolution Mar. 2004	Revise Interim Waste Load Allocations in Upper Santa Clara River Chloride TMDL





4.4.2.2 Enforcement

Whenever there is a violation of a permit condition, or a violation of a water quality standard at an unpermitted facility, the RWQCB can take enforcement action. Water quality standards are numerical or descriptive objectives for the beneficial uses to be protected. Therefore, any discharge that impacts the use of a waterbody, such as a source of drinking water or fish habitat, or that exceeds an objective, would violate standards and, therefore, be enforceable. Enforcement options include orders, fines, or judicial referrals.

For short-term cleanups, requiring immediate action, such as after a spill, an erosion problem, or a waste pond overflow, the RWQCB uses Cleanup and Abatement Orders (CAOs). A CAO is usually issued directly by the Board's Executive Officer without negotiations or public hearings. The order lists specific actions that must be done by the discharger and a time schedule for those actions.

The Board can also issue a Cease and Desist Order for permit violations. This type of order is prepared by staff, with some option for negotiations available. The Board makes final decisions at a public hearing. These orders usually include time schedules for specific activities and sometimes set interim permit limits.

The Board has the authority to impose fines, called Administrative Civil Liabilities (ACLs), if a discharger violates permit conditions, standards, or time schedules. ACLs can also be used for late or incomplete reports required to be submitted pursuant to a 13267 letter. The amount of an ACL can be based on the volume of an illegal discharge (up to \$10 per gallon), the duration of an illegal discharge (up to \$10,000 per day), or the length of time a report is late (up to \$1,000 per day).

To assess an ACL, staff prepares a complaint that notes the violations and proposes a fine. The discharger can either choose to pay the fine and waive a hearing before the Board, or to proceed with a hearing. If there is a hearing, the Board can uphold staff's position or raise, lower, or dismiss the fine. In some cases, dischargers have proposed, and the Board has accepted, environmental projects in lieu of a fine. In these cases, a portion of the fine may be suspended until the project is completed. Payment of that portion of the fine may be canceled. It is Board policy that at least some portion of a fine be paid to the state even if there is an environmental project. Board staff time costs are usually recovered in the fine.

A final option the Board has for enforcement is to refer a case to the Attorney General or a District Attorney for prosecution in the courts. Such cases can be either civil or criminal. Remedies include fines that are significantly higher than ACLs, injunctions, or, in criminal cases, jail sentences.

Citizens may file suit to enforce permit conditions for any federal permit the Board issues. Under this option, the citizen, or a group of citizens (such as environmental organization), must give 60 days notice of intent to sue. If the Board takes an enforcement action during that time, it usually





negates the citizen action. If the Board chooses not to pursue enforcement, then the citizen suit can proceed.

4.4.3 Local Management Actions

4.4.3.1 City of Santa Clarita's Current Protection Plan

The City of Santa Clarita maintains the following programs that help to protect groundwater and drinking water in the area.

- ▼ Free door-to-door collection of Antifreeze, Batteries, Motor Oil and Filters and Oil Based and Latex Paints.
- ▼ Free curbside recycling to help divert debris from entering storm drains and illegal dumping.

The Santa Clarita Municipal Code details the following guidelines with regard to control of stormwater and urban runoff pollution.

- ▼ Any person or entity operating a facility or activity in the City which discharges to the City's Stormwater system is required under federal or state law to have an NPDES Stormwater Permit.
- ▼ No person shall dispose into the environment any solid waste or liquid waste, including any pollutant, in or upon any part of the municipal separate storm sewer system (MS4), except in an authorized or permitted solid waste container or at an authorized or permitted solid waste facility or publicly owned or privately owned treatment works.
- ▼ For premises with parking lots with more than 25 parking spaces exposed to stormwater which parking lots are associated with industrial or commercial activities, the owner, occupant or other person in charge of day-to-day operation shall use BMPs to reduce the discharge of pollutants to the maximum extent practicable. Such measures may include regular sweeping or other measures, if effective.
- ▼ For premises where machinery or other equipment which is repaired or maintained at facilities or activities associated with industrial or commercial activities, the owner, occupant or other person in charge of day-to-day operations shall use BMPs or other steps to prevent discharge of maintenance or repair related pollutants to the MS4.
- ▼ For other premises exposed to stormwater, the owner, occupant or other person in charge of day-to-day operations shall use BMPs, if they exist, or other steps to reduce the discharge of pollutants to the maximum extent practicable, including the removal and lawful disposal of any solid waste or any other substance which, if it were to be discharged to the MS4, would be a pollutant, including fuels, waste fuels, chemicals, chemical wastes and animal wastes, from any part of the premises exposed to stormwater.





The following is a 14-point action plan developed by the Santa Clarita City Council to expedite clean up of contaminated soil and groundwater.

- ▼ Continue compliance review process of the Porta Bella Development Agreement.
- ▼ Require Whittaker Corporation to clean the property to the “unrestricted use” clean-up standard.
- ▼ Conduct due diligence on Cherokee and/or any new potential property owner.
- ▼ Evaluate Whittaker Corporation’s historic insurance for remediation funding.
- ▼ Regularly update the public.
- ▼ Conduct a site tour with the DTSC.
- ▼ Monitor USACE projects.
- ▼ Pursue federal, state, and local funds for clean-up.
- ▼ Coordinate multi-jurisdictional stakeholder group.
- ▼ Pursue discussion with lien holders.
- ▼ Pursue legislative support for an expedited action plan.
- ▼ Consider involving other regulatory agencies in motivating clean-up.
- ▼ Conduct research on other successful perchlorate clean-up projects.
- ▼ Monitor CLWA lawsuit against Santa Clarita, LLC and Whittaker Corporation.

It should be noted that the case is settled and the lawsuit is resolved.

4.4.3.2 Valencia Water Company

VWC promotes groundwater protection on its website, describing how to dispose of household hazardous wastes, encouraging proper usage of fertilizers, pesticides and herbicides, promoting the use of safe alternatives to commercial cleaning products, and providing a hotline number for pollution prevention.

4.5 Source Protection Summary

Management within delineated protection zones is the responsibilities of local governments and public water systems. If the use of any extremely impaired source is to be approved, the source of the contamination must be controlled to prevent the level of contamination from rising and minimize the dependence on treatment.

The state encourages voluntary source water protection by providing grants and loans for source water protection through the State Revolving Fund (SRF). Drinking water purveyors are encouraged to develop management strategies to mitigate the risk of contamination of drinking





water supplies and improve water quality. Management strategies are aimed at reducing the risk of contamination through activities such as pollution prevention, use of BMPs, and public education.

Agencies with responsibilities in the delineated protection zones can approach their protection plans through a variety of regulatory and non-regulatory measures. Regulatory controls could include:

- ▼ Implement zoning ordinances and subdivision controls
- ▼ Refine construction and operating standards
- ▼ Update health regulations
- ▼ Additional permitting requirements or inspections

Non-regulatory controls include:

- ▼ Purchase of property or development rights
- ▼ Encouraging the use of best management practices
- ▼ Public education
- ▼ Household hazardous waste collection programs
- ▼ Economic incentives for potential contaminant sources

A combination of these methods is usually necessary for an effective management plan, as well as cooperation between local agencies and compliance with management practices defined by state and federal regulations. Table 4-10 includes a summary of actions to protect groundwater from specific identified activities in the capture zones. It is specific to activities identified during the source assessment process.





Table 4-10
Wellhead Protection Recommended Activities

Activity (PCA)	Mitigation / Control Measures
Gas stations	<ul style="list-style-type: none"> ▼ Ask the Fire Department to increase inspections/reports for gas stations. A frequency of once a year with follow-up on any violations in more appropriate for a protection zone. Work closely with the Fire Department to develop a monitoring and reporting system for gas stations in the protection zones. ▼ Develop an agreement with the gas station owners to be notified in case of a spill or other accident that might impact water quality. ▼ Review applications for new gas stations and keep them out of the two-year time of travel zone. All gas stations should meet requirements for containment and monitoring.
Historical leakage from underground storage tanks	<ul style="list-style-type: none"> ▼ Maintain contact with RWQCB to ensure cleanups are progressing. Obtain verification from the RWQCB that all clean-up activities were completed.
Improperly destroyed and/or operated wells in the recharge area.	<ul style="list-style-type: none"> ▼ Identify abandoned wells and have them properly destroyed following appropriate regulations. ▼ Properly operate and maintain wells to prevent contamination of the water supply. Any new wells should be constructed to meet all well construction standards, including provision of a 50-ft. sanitary seal.
Automobile repair/ body shops	<ul style="list-style-type: none"> ▼ Recommend that pollution prevention plans be developed by commercial establishments to prevent spills and operator errors. Good housekeeping guidelines can help prevent accidents and spills. ▼ Ask the Fire Department to increase inspections/reports of any facilities storing and handling hazardous materials. ▼ Send letters to businesses that are in the zones of protection to make them aware of their location in the zone of protection, the corresponding increased risk of their causing groundwater contamination, and the need to take preventative measures. ▼ If they have old cars and other vehicles/containers that can leak oil, gasoline and other chemicals, contact the Fire Department and/or LA County Sanitation Pretreatment program to have the site inspected. ▼ In the event soil contamination is detected, work with the agency to make sure a monitoring well is installed between the site and the production well.
Plastics / synthetics producers	<ul style="list-style-type: none"> ▼ Ask the Fire Department to increase inspections and reports for plastic manufacturers, and any other type of business known to release or have the potential to release TCE, PCE, or cis-1,2 DCE. ▼ Develop a plan with business owners to minimize use and/or release of groundwater contaminants. Also, create an incentive program for these businesses to reduce the use of these chemicals.





5.0 TREATMENT EVALUATION AND EFFECTIVE MONITORING

5.1 Overview

This chapter presents the evaluation of effective monitoring and treatment for the Perchlorate Treatment Project. Various treatment technologies available to treat the perchlorate plume in the two Saugus Formation wells are described. The discussion covers raw water facilities and compares seven treatment processes for removal of perchlorate: fluidized bed reactors (FBRs), fixed-bed reactors (FXBs), non-regenerable ion exchange (IX), regenerable IX, granular activated carbon (GAC), reverse osmosis (RO) and nanofiltration (NF), and electro dialysis reversal (EDR). These processes were evaluated against the following four criteria: process efficiency and robustness, DPH approval and permitting issues, O&M and capital costs, and WDR. A treatment process is recommended and then described per its performance standards, operations plan, reliability features, compliance monitoring and reporting program, notification plan, and extremely impaired source water quality surveillance plan.

5.2 Raw Water Supply Facilities

This section reviews the raw water supply facilities for the project, including well and pipeline facilities.

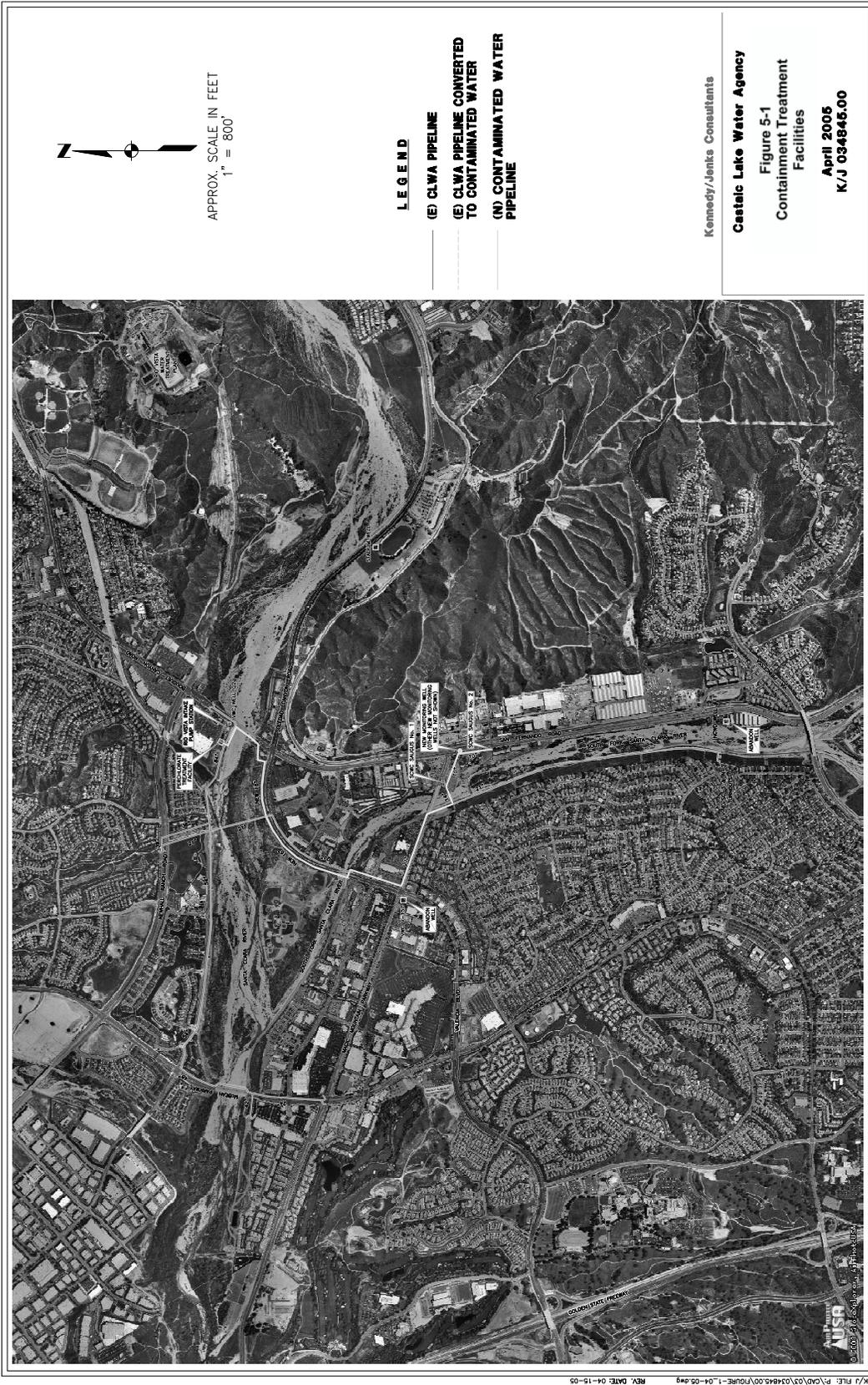
5.2.1 Well Facilities

New variable speed pumps, each capable of pumping up to 1,200 gallons per minute (gpm), would be installed at the existing production wells, Saugus 1 and Saugus 2, shown on Figure 5-1. As discussed in Chapter 4, the Agency would operate Saugus 1 and Saugus 2 as containment wells with an initial combined pumping rate of 2,200 gpm to assess the adequacy of containment. In the event that excess groundwater would be required for water supply purposes, the pumping rate could be increased up to 2,400 gpm combined.

5.2.2 Pipeline Facilities

Figure 5-1 shows the pipeline alignment consisting of both new and existing pipelines. A new 10-inch pipeline, approximately 700 feet in length, would be constructed to connect Saugus 2 to Saugus 1 and an additional 850 feet of 10-inch pipe connecting Saugus 1 to the north side of Magic Mountain Parkway. Approximately 5,130 feet of 16-inch pipe will connect the 10-inch line, run along Magic Mountain Parkway to connect to an existing 21-inch pipeline at Valencia Boulevard. The pipeline then turns north along Valencia Boulevard to the South Fork Santa Clara River. At the South Fork Santa Clara River crossing, water is conveyed via a new 2,000 foot-long, 16-inch pipeline that conveys water from the river crossing to the water treatment facility site, located immediately adjacent to the existing Rio Vista Intake Pump Station, southwest of the intersection of Bouquet Canyon Road and Newhall Ranch Road. The above described pipeline information is tabulated in Table 5-1. The plans and specifications for these





APPROX. SCALE IN FEET
1" = 800'

LEGEND

- (E) CLWA PIPELINE
- (E) CLWA PIPELINE CONVERTED TO CONTAMINATED WATER
- (N) CONTAMINATED WATER PIPELINE

Kennedy/Jenks Consultants

Castaic Lake Water Agency

Figure 5-1

Containment Treatment Facilities

April 2005

K/J 034646.00

K/J FILE: P:\20\03\034646.00\FIGURE-1-04-05.dwg REV. DATE: 04-15-05



pipelines are complete, and construction is in progress. Adequate sewer/water/raw water main separation shall be maintained.

**Table 5-1
 Pipeline Design Criteria**

Pipeline-Size	Length (ft)	Max Flow (gpm)	Velocity (ft/sec)	Material
New 10-inch	1,550	1,200	4.9	Cement Mortar Lined and Coated (CML&C) Steel
New 16-inch	5,130	2,400	3.8	CML&C Steel
Existing 21-inch	1,400	2,400	2.2	Concrete Cylinder Pipe (CCP)
New 16-inch	2,000	2,400	3.8	CML&C Steel

Table 5-1 indicates that the maximum design velocity along the entire alignment would be 5.0 feet per second (ft/sec), which would promote a cost-effective pumping system.

5.3 Description of Water Treatment Alternatives

This section presents an evaluation of alternative treatment processes for the project. The basis of design, alternative treatment processes, evaluation of alternatives including estimated costs, and the recommended alternatives are described.

5.3.1 Basis of Design

Factors affecting the basis of design are raw water quality, flow rate, and treatment requirements from DPH Policy Memo 97-005.

5.3.1.1 Raw Water Quality

The raw water quality data from the Saugus 1 and Saugus 2 wells is presented in Chapter 3. The data was used as a basis for evaluating treatment alternatives. As summarized in Table 5-2, the primary concern for treatment is perchlorate. The regulatory limit is listed for each constituent.





**Table 5-2
 Summary of Current Raw Water Quality**

Parameter	Units	Saugus 1		Saugus 2		Design Concentration	Standard Value	Standard Source
		Historic High level	Final Purge B	Historic High level	Final Purge B			
TDS	mg/L	525	569	450	393	480	1000	SMCL
HPCs	cfu/mL	--	485	--	1190	835	<500	MCLG
Nitrate (as NO ₃)	mg/L	19	15.4	9.7	11.4	11	45	MCL
Sulfate	mg/L	190	194	110	106	130	500	SMCL
Perchlorate	µg/L	42	40	23	60	47	6	MCL

To determine the design basis for the perchlorate removal system, the current raw water quality data, presented in Table 5-2, was compared to 10 years of operational data. Perchlorate concentrations average 47 ppb over ten years. This was considered the design concentration. Furthermore, a process that is able to meet treatment goals at 25 percent higher concentrations or more would be preferable.

Table 5-2 also indicates that HPC levels in Saugus 2 are above the desired level*. For any treatment process selection, chlorine disinfection would be applied post-treatment to inactivate the HPCs. HPC concentrations should also improve (decrease) with continuous pumping.

TDS concentrations would be lowered through blending within the Agency’s system. Treated water from the new perchlorate treatment facility would be conveyed to an existing 84-inch diameter treated water pipeline, which conveys treated water from the Agency’s Rio Vista Water Treatment Plant (RVWTP) and/or the Earl Schmidt Filtration Plant (ESFP) to the distribution system. Average and peak flows in this pipeline are approximately 30 million gallons per day (mgd) and 60 mgd, respectively. This blending supply is available on a continuous basis.

Although VOC concentrations have been detected in more shallow wells in the vicinity of the Whittaker Bermite facility as described in Chapter 3, TCE and PCE are significantly lower than the regulatory limits in the Saugus Formation Wells and, therefore, will not be addressed as part of this treatment design. However, realizing that VOCs are still a potential concern, the monitoring system incorporated into the design as part of the Source Water Protection Plan will monitor these constituents. In addition there would be sufficient square footage on site to incorporate a treatment facility should VOC concentrations exceed drinking water regulatory limits.

* Elevated HPC concentrations indicate a need for increased disinfection. They do not constitute a failure to meet drinking water criteria and do not represent a hazard to human health.





5.3.1.2 Flow Rate

The design and maximum flow rates used for the treatment evaluation were 2,200 gpm and 2,400 gpm, respectively. The minimum raw water pumping rate of 2,200 gpm was based on providing optimal containment of the current perchlorate plume. If additional production or containment were required, the treatment facility would operate at its capacity of 2,400 gpm.

5.3.1.3 Treatment Requirements from DPH Policy Memo 97-005

The DPH Policy Memo 97-005 establishes guidelines for treatment of extremely impaired sources. As a minimum, the treatment should include the best available treatment (BAT) for the contaminant as defined by the USEPA. To date, the BATs for perchlorate removal have not been published. However, for nitrate, the BATs listed are RO, EDR, and IX. Treatment for perchlorate must be optimized, and the entire flow must pass through the treatment process. Also, if available for further buffering, other water should be blended with the treated effluent of the impaired source prior to the distribution system. A multi-barrier approach may be appropriate for some conditions. The condition that may apply for the Agency is when “very large reductions in contaminant concentration are required,” as is the case for perchlorate.

5.3.2 Alternative Processes for Perchlorate Removal

Four groups of process alternatives were reviewed for treatment of perchlorate, including: biological, GAC, IX, and membranes. The following sections describe each of these treatment technologies.

Along with the four general process alternatives mentioned above, bench and pilot-scale testing were performed for this project with FXB, FBR, and non-regenerable IX technologies. TM No. 3, prepared by Carollo Engineers in February 2004, provides a detailed evaluation of the testing. A summary of the results from these tests is included in Section 5.4.1.

5.3.2.1 Biological

Two alternative biological processes were reviewed for perchlorate removal: FXBs and FBRs. Biological treatment for potable water uses requires conventional post-secondary treatment before the water can be conveyed to users. Conventional water treatment involves flocculation, sedimentation and filtration facilities. Another possibility is submerged membrane bioreactor (SMBR) that was tested successfully by Carollo during the pilot-scale testing. The following sections describe the two biological treatment alternatives.

5.3.2.1.1 Fixed Bed Reactors

The FXB process utilizes a fixed-film reactor column that fosters the growth of microorganisms on a fixed bed of media, usually sand or plastic. This process makes use of anoxic microorganisms which use perchlorate as an electron acceptor to reduce perchlorate, with end products of water, carbon dioxide, and chloride. In order to reduce perchlorate, these microorganisms need the addition of a food source (electron donor) to the reactor, such as





ethanol, methanol, acetate, or hydrogen. The fixed-bed system works the same as a filter, in that pressure drop across the bed needs to be monitored so a backwash cycle can begin when needed to remove the biosolids accumulation.

The FXB process piloted as part of this project was made up of a 14-foot tall 4-inch diameter filter column using virgin Calgon F-400 GAC as the support media. Section 5.4.1 further describes the results of the bench/pilot testing. Figure 5-2 presents the FXB pilot test.



Figure 5-2 - FXB Pilot Tested for Perchlorate Treatment in Drinking Water

5.3.2.1.2 Fluidized Bed Reactors

The FBR process also utilizes a reactor column. The microorganisms grow and attach on a hydraulically fluidized bed of media. The fluidized media, usually sand or GAC, provides a large surface area on which a film of microorganisms can grow and produce a large inventory of biomass in a small reactor volume. Bed fluidization eliminates the need for media backwashing. If GAC is used for media, then it can also adsorb selected organic compounds in the groundwater.

Perchlorate is removed by the same biological process as in the FXB technology except that the media is fluidized for FBRs. Both the FXB and FBR biological processes also degrade nitrate; and, in fact, the microorganisms will reduce nitrate before perchlorate. The waste byproduct generated from the biodegradation of perchlorate and/or nitrate is a small amount of excess biosolids (on the order of 10 mg/L), which are discharged with the treated water.

When biological growth occurs on the fluidized bed media particles, the diameter of the particles increases, and the effective density is reduced, resulting in a bed expansion beyond that experienced with unseeded media. Under conditions resulting in extensive biofilm growth, it may be necessary to control the biofilm thickness to prevent the density of the biofilm-covered media from decreasing to the point where bed carryover occurs.

Figure 5-3 presents a photograph of a full-scale FBR facility installed for perchlorate removal at another location in California.





The FBR process was also piloted as part of this project. The FBR system is composed of the bioreactor, the bed height control component, biomass separator, a fluid distribution system at the bottom of the reactor, an acetic acid feed pump, and chemical feed systems. The FBR media used was a proprietary coconut shell-based GAC. Section 5.4.1 further describes the results of the bench/pilot testing.



Figure 5-3 - Full-Scale FBR Installed for Perchlorate Removal

5.3.2.2 Granular Activated Carbon

Treatment of drinking water with GAC is an established technology for the removal of organic compounds. GAC systems are generally easy to implement because of the simplicity of the equipment. GAC removes contaminants from water by adsorption from the liquid phase to the GAC surface. GAC is created by grinding, burning, and then activating carbon materials, such as peat, coal, and wood. Coal is used most often to manufacture GAC for municipal water applications. This procedure develops porous media with a high surface area for improved adsorption. When the adsorptive capacity is exhausted, the spent GAC is either disposed (i.e., landfill) or regenerated off-site.

To date, conventional GAC has not been proven effective in removing perchlorate. Several researchers have investigated “doping” (or “tailoring”) of conventional GAC with Fe, oxalic acid, or cationic polymers to alter surface chemistry, thereby increasing perchlorate adsorption capacity and increasing run times. Tailored GAC testing proved promising in an American Water Works Association Research Foundation (AwwaRF) funded project entailing bench-scale studies. Subsequently, a large-scale pilot project has been running successfully at the City of Redlands Texas Street plant. Preliminary indications are that the technology will be cost-competitive with IX technologies, but the tailored GAC systems are not yet available for installation on a commercial basis.

A schematic of a typical GAC contactor is shown on Figure 5-4.

5.3.2.3 Ion Exchange

IX refers to the exchange of one ion for another. Two alternative IX processes were reviewed for perchlorate removal: non-regenerable IX (single-use) and regenerable IX. The following sections describe the two IX alternatives.

NDMA formation has occurred in waters treated by IX, and any resin considered to treat perchlorate must be evaluated for its potential to form NDMA upon subsequent disinfection. Three resins were tested for NDMA formation potential during the bench/pilot testing, and NDMA formation did not occur. Results of this testing are further described in Section 5.4.1.





In addition to NDMA, DPH also requires testing for the following six additional nitrosamines during startup of IX facilities: N-nitrosodiethylamine (NDEA), N-nitroso-n-propylamine (NDPA), N-nitrosodi-n-butylamine (NDBA), N-nitrosomethylethylamine (NMEA), N-nitrosopiperidine (NPIP), and N-nitrosopyrrolidine (NYPR). DPH recently established notification levels for two of these additional nitrosamines: NDEA and NDPA. The notification level for NDMA, NDEA, and NDPA, is 10 nanograms per liter (ng/L). Although notification levels have not been established, DPH requires sampling of NDBA, NMEA, and NYPR during startup.

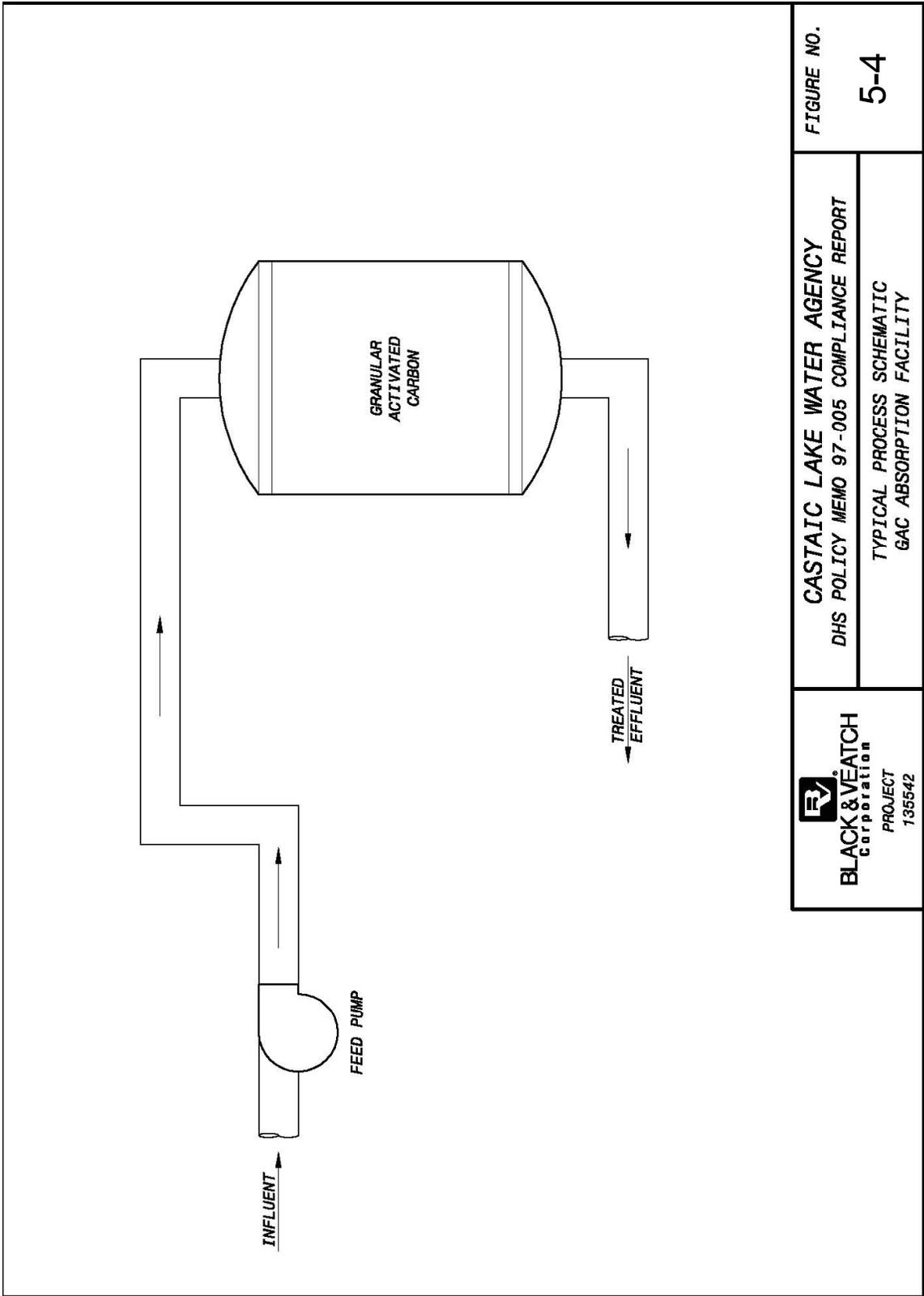
5.3.2.3.1 Non-Regenerable IX (Single-Use)

The non-regenerable IX process consists of pressurized feed water being passed through a pressure vessel holding a packed resin bed that selectively exchanges a targeted ion for another. In resins intended for the removal of the perchlorate ion, chloride is exchanged for perchlorate.

The surface of the resin is covered with exchange sites. For non-regenerable perchlorate-specific resins, the resin does not exchange chloride for all anions present in the water (sulfate, nitrate, and bicarbonate). The resin is designed to substitute chloride only for perchlorate, thereby increasing the exchange capacity of the resin. Eventually, the available exchange sites are filled, the resin capacity for perchlorate is exhausted, and “breakthrough” of perchlorate occurs. Breakthrough is defined as a predetermined concentration of a specific contaminant (perchlorate) occurring in the process effluent. When this happens in the lead column, or vessel, the bed is considered “exhausted,” and the spent non-regenerable resin is removed and replaced by new resin. The spent resins are then disposed.

Disposal of non-regenerable resins can be problematic if heavy metals are present even at trace amounts as they may accumulate on the resin and upon disposal leach from the resin over time. The Federal Toxicity Characteristic Leaching Procedure (TCLP) should be performed and radioactivity of the spent resin should be evaluated to determine if transportation and disposal of the spent resin would require special handling or facilities.





 BLACK & VEATCH Corporation PROJECT 135542	CASTAIC LAKE WATER AGENCY DHS POLICY MEMO 97-005 COMPLIANCE REPORT TYPICAL PROCESS SCHEMATIC GAC ABSORPTION FACILITY	FIGURE NO. 5-4
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Figure 5-5 presents a photograph of a full-scale non-regenerable IX facility installed for perchlorate removal at a California location.

A non-regenerable IX process alternative was also tested at the bench-scale level as a part of this project. Three columns, each 15 mm in diameter and 30 cm in length, were tested for their ability to treat perchlorate with three commercially-available perchlorate-selective IX resins.

5.3.2.3.2 Regenerable IX

The regenerable IX process is similar to the non-regenerable IX process in that one ion is exchanged for another. However, instead of being discarded, the spent resin is regenerated on site. Therefore, this type of process consists of two cycles: production and regeneration. In the production mode, the pressurized feed water is passed through a pressure vessel holding a packed resin bed that selectively removes a targeted constituent and exchanges it for another benign species of similar charge. The production mode is similar to the process for non-regenerable IX except that, when the bed is exhausted, the process then switches to regeneration mode.

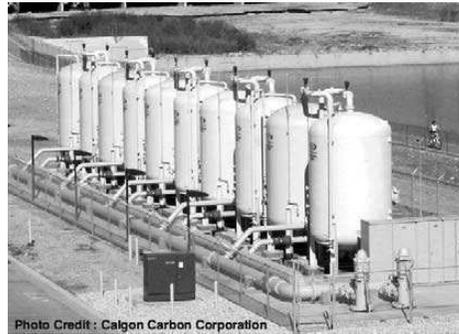


Figure 5-5 - Full-Scale Non-Regenerable IX Facility Installed for Perchlorate Removal

An important property of non-selective IX resins is their “selectivity” for one ion over another. When exposed to a mixed solution of ions, a resin will exchange one type of ion preferentially over another. With resins generally having a very high selectivity for perchlorate, a standard anion resin has selectivity expressed as follows:



In regeneration mode, the exhausted bed is regenerated with a high concentration salt solution that forces the IX process in the opposite direction of the production mode. Using perchlorate IX as an example, the anionic resin bed is regenerated with concentrated sodium chloride brine solution. The high concentration of chloride in the brine solution displaces the perchlorate ion from the active sites.

Following regeneration, the perchlorate is contained in the spent brine regenerant solution, which requires appropriate disposal. Disposal of spent brine is a critical issue to address when using this process. Disposal options include use of regional non-reclaimable waste (NRW) pipelines that convey the brine to treatment plants that can accommodate such contaminants.

During regeneration, the brine solution is introduced countercurrent to the feed water to minimize perchlorate leakage. The brine regeneration is followed by a slow rinse using softened water, also in the countercurrent mode. Regeneration requires storage tanks for brine solution





and softened water, waste regenerate receiving tanks, brine and softened water production units, and associated pumps and valves.

Figure 5-6 presents a process schematic for a typical regenerable IX facility.

5.3.2.4 Membranes

Two alternative membrane processes were reviewed for perchlorate removal: EDR and RO/NF. The following sections describe the two membrane alternatives.

5.3.2.4.1 Electrodialysis Reversal

EDR is an electrochemical separation process for the removal of ionic contaminants from a water supply, including perchlorate. EDR uses IX resin membranes that allow passage of either anions (anion-transfer membranes) or cations (cation-transfer membranes). The basic module consists of alternating anion-transfer and cation-transfer membranes separated by a flow spacer. A direct current (DC) voltage potential field is applied across the membranes. As the feed water flows through the flow spacer between the membranes, the DC voltage potential induces the cations (positively charged ions such as sodium and calcium) to migrate towards the cathode through the cation-transfer membrane. Likewise, anions (negatively charged ions such as chloride and nitrate) migrate towards the anode through the anion-transfer membrane. The cations and anions get trapped in the brine channel by the alternating IX membranes.

As cations and anions are removed from the demineralized stream, the membrane surface on that side gets depleted of ions, causing significant increase in electrical resistance and current density. This eventually would lead to depolarization and dissociation of water. To eliminate this problem, the polarity of the field is reversed periodically, and the scale forming ions are flushed off the membrane surface.

The performance of EDR depends on feed water quality. As in RO, scaling of sparingly soluble salts limits the recovery possible. Use of chemicals such as antiscalants is required to control the formation of inorganic scale. Presence of organic matter could also affect the performance of the process. To achieve high recovery and high rejection, three stage EDR facilities are typically used. Recoveries in the range of 70 to greater than 90 percent are possible depending on the water quality. Only one manufacturer supplies EDR equipment in North America, which eliminates a competitive bidding environment. A process schematic of a typical EDR system is shown on Figure 5-7.



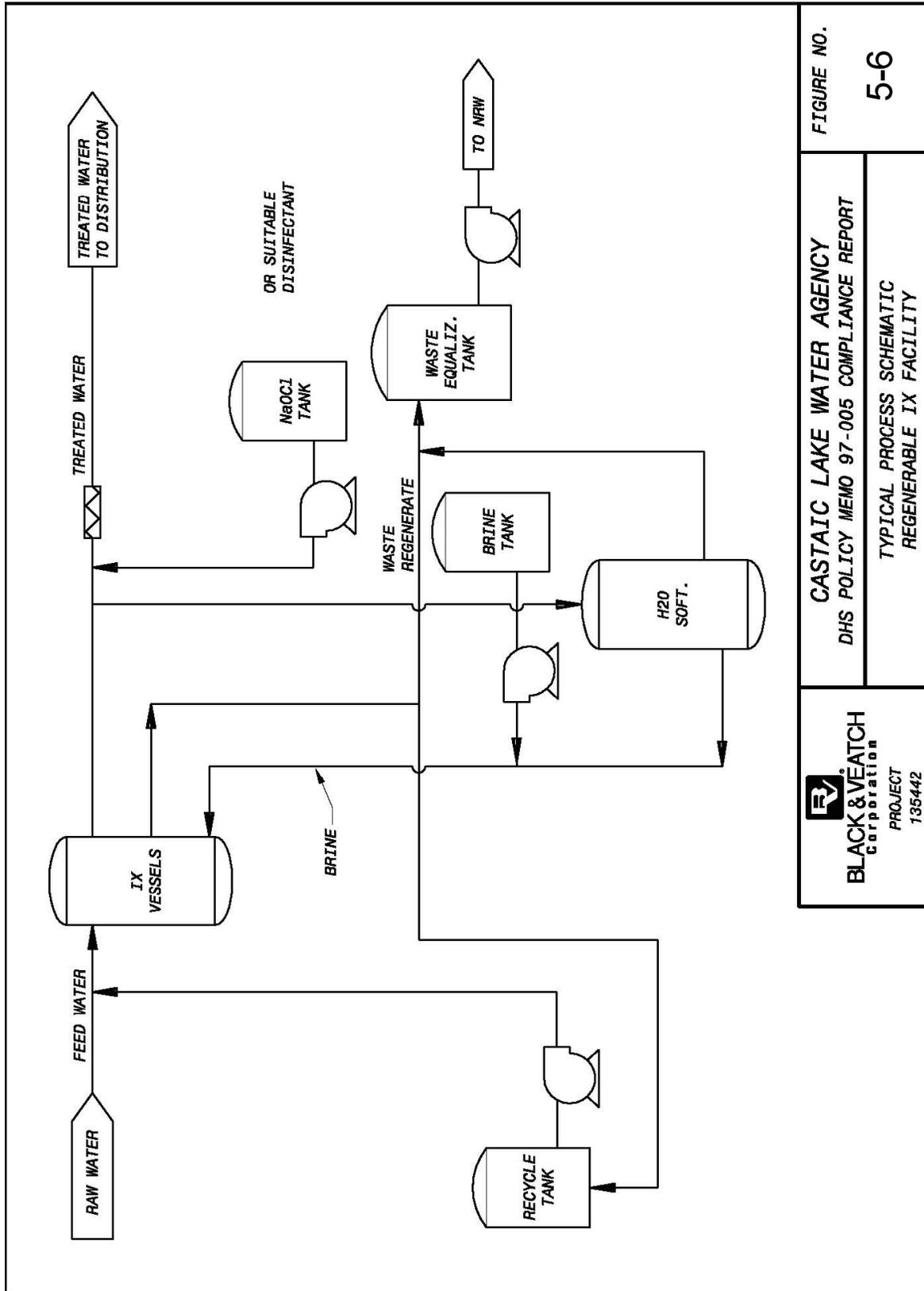


FIGURE NO.
5-6

CASTAIC LAKE WATER AGENCY
DHS POLICY MEMO 97-005 COMPLIANCE REPORT
TYPICAL PROCESS SCHEMATIC
REGENERABLE IX FACILITY

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PROJECT
135442

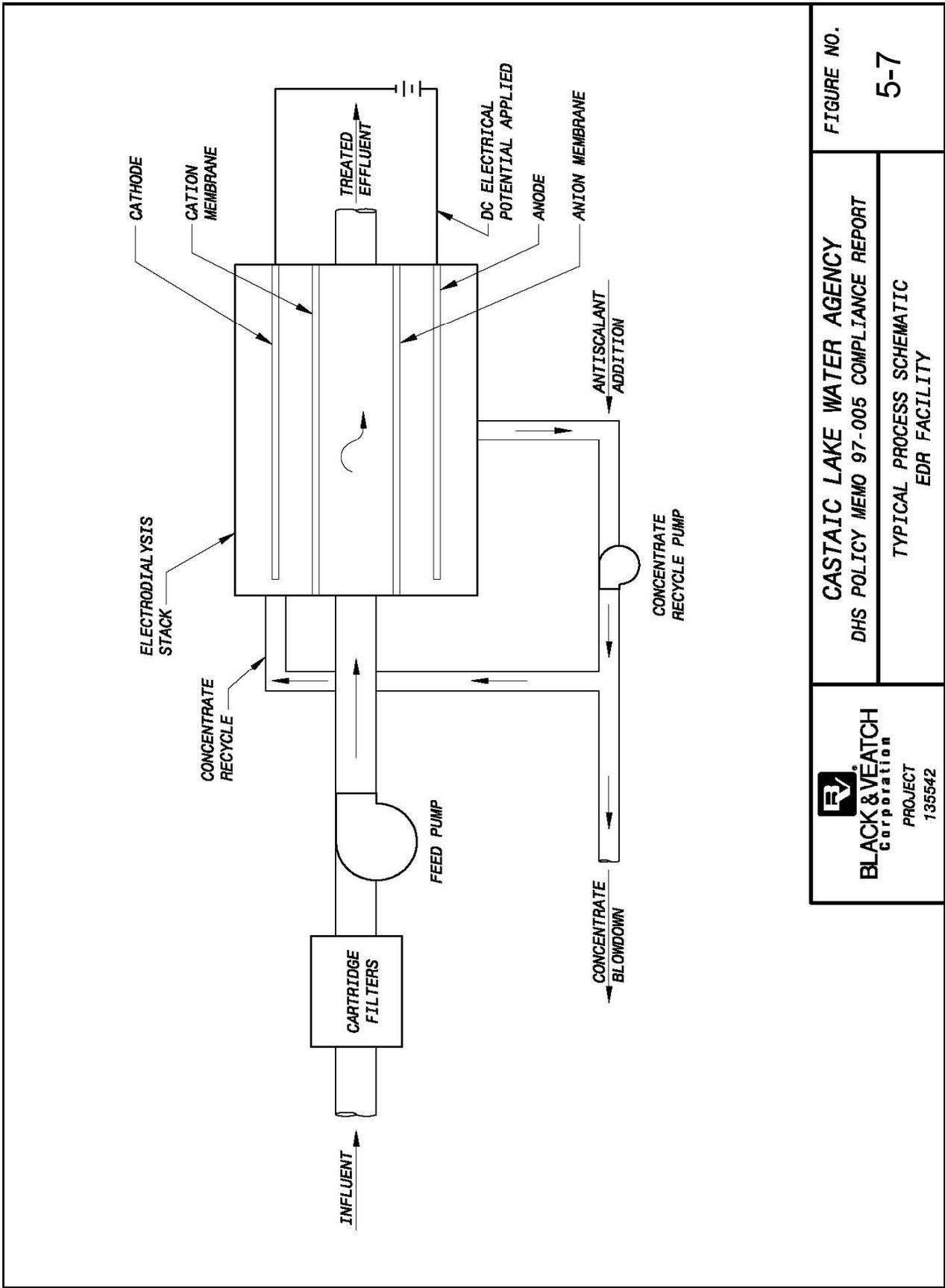


FIGURE NO.

5-7

CASTAIC LAKE WATER AGENCY
 DHS POLICY MEMO 97-005 COMPLIANCE REPORT

TYPICAL PROCESS SCHEMATIC
 EDR FACILITY



BLACK & VEATCH
 Corporation

PROJECT
 135542



5.3.2.4.2 Reverse Osmosis/Nanofiltration

RO/NF membranes are capable of removing microbial contaminants as well as a wide variety of dissolved organic and inorganic constituents from water, including salts, disinfection by-products, pesticides, and others. Performance is described in terms of recovery of product water, rejection of contaminants, operating pressure, and volume of water passing through the membrane per membrane area (flux). Recovery is the ratio of product water to influent feed water. It is limited by the concentration of solids on the brine side of the membrane and can range from 75 to 90 percent. Rejection measures the amount of contaminant that can be removed and can vary among different membranes. Membranes with greater than 99 percent rejection are currently available. Operating pressures are on the order of 100 pounds per square inch (psi) or higher, depending on salinity. Flux rate measures the flow per unit area of membrane at a given pressure and varies by membrane type and by the particular water chemistry. Membrane fouling directly reduces the flux rate, hence decreases the overall treatment capacity. Membrane fouling is mitigated either by pretreatment, membrane cleaning, or both.

Pretreatment is usually required to prevent fouling and possible chemical damage to the RO/NF membranes, to improve the performance of RO/NF, and to extend the life of the membranes. Pretreatment can include pH adjustment, cartridge filtration, or addition of scale inhibitors (antiscalants). The type and extent of pretreatment will depend on the type of membrane used, composition of feed water, and desired flux and recovery of the system. The addition of antiscalants and adjusting the pH are commonly used to increase recovery by reducing the precipitation potential of salts in the reject stream.

The pretreated water is then pumped through vessels containing the RO/NF membrane elements. Several RO/NF configurations such as single-pass or multi-pass arrangements can be applied for water treatment. In a single-pass system, part of the feed stream passes through the membrane (product water or permeate), while the remaining part exits the membrane as brine (concentrate or reject). In a multi-pass system, concentrate from one stage passes through another membrane as its feed water or, if it is the last stage in the design, it could be discharged. The second and consecutive stages would treat water with higher TDS and hence would produce a permeate water slightly lower in quality compared to the first stage. However, blending the permeate from the various stages would result in water that still meets or exceeds overall project water quality goals. Water recovery for single pass systems is lower than multi-pass configurations.

Permeate from the RO/NF process is corrosive due to a lack of calcium and alkalinity and the acidic pH. Post treatment options for corrosion control of RO/NF product water include releasing carbon dioxide in a degassifier; adding caustic, sodium bicarbonate or sodium carbonate to increase bicarbonate alkalinity and pH; and adding lime to increase both calcium ion and alkalinity concentrations and pH. Permeate is often blended with source water to make up a high quality water supply and to reduce overall water treatment costs.

A schematic of a typical RO/NF system is shown on Figure 5-8.



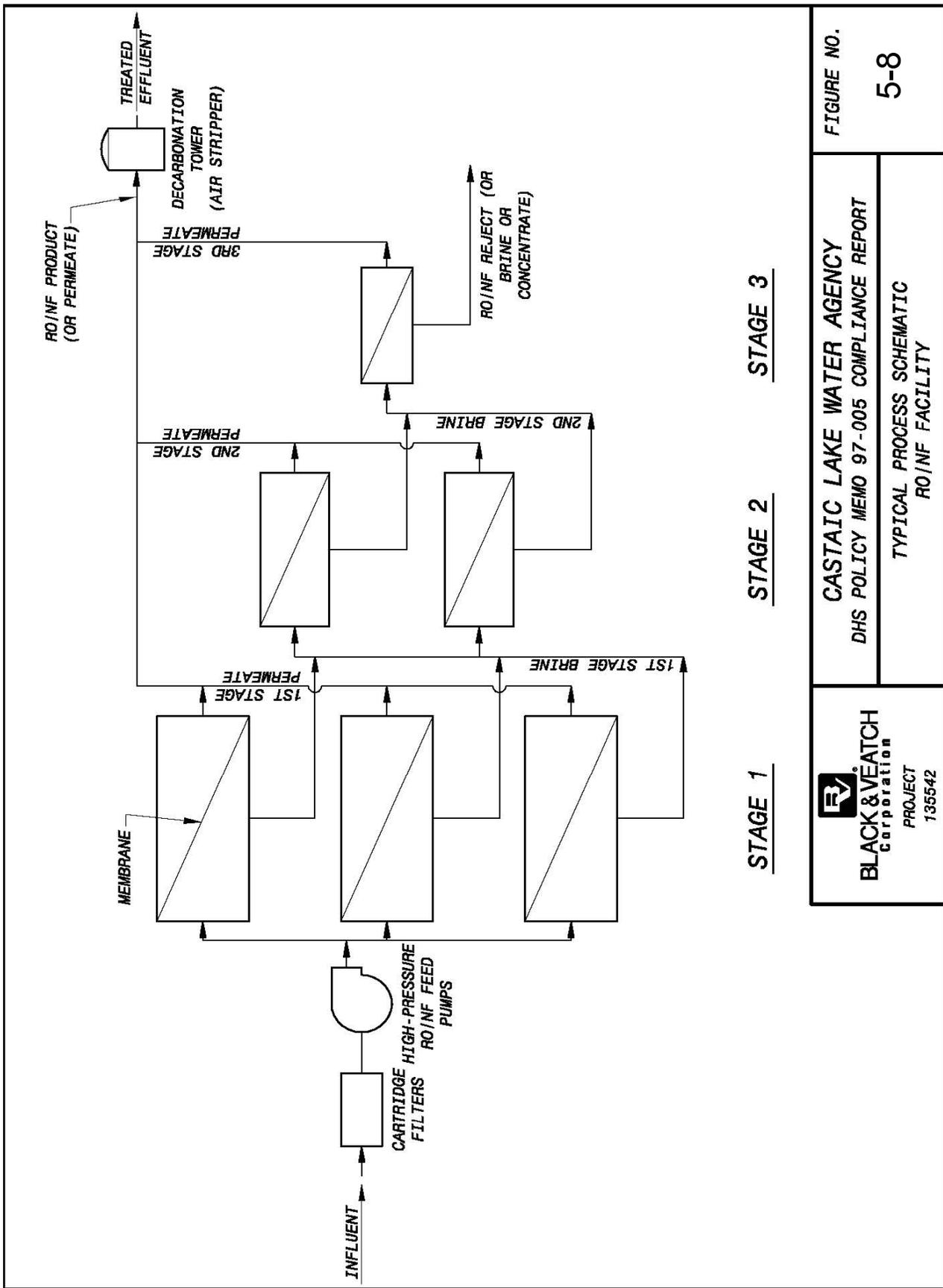


FIGURE NO.
5-8

CASTAIC LAKE WATER AGENCY
DHS POLICY MEMO 97-005 COMPLIANCE REPORT
TYPICAL PROCESS SCHEMATIC
RO/NF FACILITY

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135542

STAGE 1 STAGE 2 STAGE 3



5.4 Evaluation of Alternatives

The treatment alternatives were compared against each other based on specific criteria. This section describes the evaluation methodology, including pilot testing results, defines evaluation criteria, discusses ranking/weighting of the criteria, and presents the results of the alternatives analysis.

5.4.1 Pilot- and Bench-Scale Tests

As mentioned in Section 5.3, pilot- and bench-scale tests were performed to evaluate the effectiveness of IX and biological processes for treating perchlorate-contaminated water from the Saugus Formation. Non-regenerable IX, FBR, and FXB were tested because of their ability to remove perchlorate without producing a perchlorate-laden liquid waste stream that needs to be managed.

The 6-month study was performed by Carollo Engineers with the following objectives:

- ▼ Compare the perchlorate removal performance of three commercially available and National Sanitary Foundation (NSF)-certified perchlorate-selective IX resins using water from the Saugus Formation under identical operational conditions by running bench-scale flow-through column tests in parallel.
- ▼ Determine the NDMA formation potential of three IX resins when the water is pre- or post-chlorinated at the bench-scale.
- ▼ Determine characteristics of the spent resins.
- ▼ Demonstrate the efficacy of FBR and FXB treatment for perchlorate removal from Saugus Formation water (i.e. show consistent perchlorate removal to below 4 ppb).
- ▼ Verify that sufficient perchlorate-degrading microorganisms can be developed in the pilot scale reactors using microorganisms indigenous to the Saugus Formation.
- ▼ Using pilot-scale FBRs and FXBs, develop full-scale design criteria for EBCT, backwashing procedures, electron donor addition (acetic acid), and nutrient addition.
- ▼ Evaluate the robustness of the FBRs and FXBs with respect to system upsets, such as electron donor feed failure, process shutdowns, and changes in feedwater oxidant concentrations.
- ▼ Compare overall process performance between FXB and FBR configuration.
- ▼ Demonstrate the efficacy and robustness of the FBR's on-line perchlorate analyzer in comparison to other conventional laboratory analysis.
- ▼ Determine post-treatment requirements for the IX, FBR, and FXB perchlorate removal processes (i.e. characterize process effluent quality and disinfection byproduct formation potential).





During the bench/pilot testing, three resins were tested in parallel based on their availability for use in package systems, vendor recommendations, and applicability to treating Saugus Formation groundwater based on modeling results. The following resin descriptions were taken from the Bench and Pilot Test Results TM, prepared by Carollo Engineers in February 2004. Section 5.3.6 of this TM presents the specifications for the resin selected for use in the Agency's perchlorate treatment project.

- ▼ U.S. Filter K-9710 (U.S. Filter Corporation, Rockford, Illinois): USF K-9710 is a strong base quaternary amine macroporous anion resin consisting of a styrene divinylbenzene matrix. The resin was tested at Edwards Air Force Base. This resin, which received NSF-61 certification in July 2003, can be supplied directly through a system manufacturer (e.g. U.S. Filter, Calgon Carbon). A full-scale system using this resin is operational in the City of Rialto, California. The resin has a unique dual functionality exhibiting very high selectivity for oxy anions, such as perchlorate, that allows for efficient removal in a relatively high TDS background. U.S. Filter recommends the use of this resin for single pass applications.
- ▼ Calgon Carbon Cal Resin 2 Resin 2100 Series (Calgon Carbon Corporation, Pittsburgh, Pennsylvania): This resin consists of a trimethylamine functionalized, chromomethylated copolymer of styrene and divinylbenzene in the chloride form. DPH approved packaged treatment systems are located at the City of Riverside and at California Domestic Water Company. Cal 2100 Series resins are NSF certified (NSF/ANSI Standard 61) through WQA.
- ▼ U.S. Filter K-9708 Resin (U.S. Filter Corporation, Rockford, Illinois): USF K-9708 is a strong base quaternary amine macroporous anion resin consisting of a styrene divinylbenzene matrix. The resin has a special functionality which exhibits high selectivity for perchlorates and nitrates over sulfates. This selectivity allows the resin to remove perchlorates and nitrates preferentially over sulfates with no potential for perchlorate or nitrate dumping. The resin is initially in the chloride form. USF K-9708 is an NSF-certified resin.

Bench-scale NDMA formation potential tests were conducted during the later phases of the IX testing. Post-chlorination testing with free and combined chlorine was conducted on each column effluent, as well as pre-chlorination testing with free chlorine. In addition, resin leaching testing in groundwater and deionized water without the addition of chlorine was conducted for baseline comparison. The preliminary NDMA formation tests with pre- and post-disinfection, as well as spent resin characterization tests, suggest that the operation and disposal of these resins under the conditions tested should not raise any concern.

Results of the pilot- and bench-scale test are described in more detail in Carollo's Technical Memorandum No. 3. A summary of the pilot- and bench-scale testing is presented in Table 5-3.





**Table 5-3
 Summary of Pilot- and Bench-Scale Test Results**

Technology	Summary of Results/Issues
IX Resin 1 (USF K-9710)	<ul style="list-style-type: none"> ▼ Perchlorate detected (>1ppb) in effluent after 187,000 gallons per cubic foot (gal/ft³) ▼ Resins not classified as hazardous ▼ Should not pose a challenge to CLWA ▼ NDMA precursors did not leach from the resin ▼ High chloride concentrations may occur at startup, or following a period of shutdown ▼ Temporary discharge of water following resin replacement may pose a challenge due to potential regional chloride restrictions ▼ No chromatographic peaking was observed for nitrate
IX Resin 2 (Cal Resin 2100)	<ul style="list-style-type: none"> ▼ Perchlorate detected (>1ppb) in effluent after 540,000 gal/ft³ ▼ Resins are not classified as hazardous ▼ Should not pose a challenge to CLWA ▼ NDMA precursors did not leach from the resin ▼ High chloride concentrations may occur at startup, or following a period of shutdown ▼ Temporary discharge of water following resin replacement may pose a challenge due to potential regional chloride restrictions ▼ No chromatographic peaking was observed for nitrate
IX Resin 3 (USF K-9708)	<ul style="list-style-type: none"> ▼ Perchlorate detected (>1ppb) in effluent after 569,000 gal/ft³ ▼ Resins are not classified as hazardous ▼ Should not pose a challenge to CLWA ▼ NDMA precursors did not leach from the resin ▼ High chloride concentrations may occur at startup, or following a period of shutdown ▼ Temporary discharge of water following resin replacement may pose a challenge due to potential regional chloride restrictions ▼ No chromatographic peaking was observed for nitrate
FBR	<ul style="list-style-type: none"> ▼ Did not achieve perchlorate removal below detection for over 8 days with seeded organisms ▼ Indigenous organisms not tested
FXB	<ul style="list-style-type: none"> ▼ Removed perchlorate only with organisms indigenous to the Saugus Aquifer. ▼ EBCT of 15 min ▼ Acetic acid dosage of 7.8 mg/L ▼ Haloacetic Acids (HAAs) and Trihalomethanes (THMs) levels lower than Stage 2 MCLs ▼ AOC effectively removed to below 0.2 mg/L ▼ FXB was robust with respect to backwashing episodes, changes in feed water quality, system shutdowns, and electron donor addition failures ▼ Large changes in nitrate required a period of bio-acclimation ▼ Requires additional post treatment; SMBR effective





5.4.2 Development of Evaluation Criteria

The following sections describe the four criteria that were selected for detailed evaluation of the four alternative treatment processes: process efficiency and robustness, DPH approval and permitting issues, O&M and capital cost, and WDRs.

5.4.2.1 Process Efficiency and Robustness

The process alternatives were evaluated based on their effectiveness in treating perchlorate and other potential contaminants such as NDMA. They were also evaluated by the robustness of the process, which is an evaluation of how the system reacts to unexpected events (e.g. a concentration spike in a contaminant, power failure).

5.4.2.2 DPH Approval and Permitting Issues

The treatment alternatives were also evaluated based on their probability of fast track implementation, DPH approval, and other permitting issues. The treatment process needs to be implemented as quickly as possible to contain and treat the perchlorate contaminated water. Therefore, it is critical that architectural, siting, and other permits as well as DPH approval be attainable in a timely manner.

5.4.2.3 O&M and Capital Costs

The evaluation considered anticipated O&M and capital costs. The estimated O&M costs included the costs of power, supplies, chemicals, equipment, maintenance, employee safety training, development and implementation of risk management plans, and other costs related to safe handling and storage of the chemical under each alternative. The O&M costs were based on operating costs experienced at similar facilities. The preliminary capital cost estimate presented herein includes construction costs, engineering and administrative costs, and an allowance for contingencies. The capital cost estimate incorporates the engineer's experience with similar projects and budgetary pricing obtained from equipment manufacturers and suppliers. Costs were for comparative purposes only. Capital costs include the cost of the equipment, interconnecting piping, and any necessary valving to make the equipment work.

5.4.2.4 Waste Discharge Requirements

The process alternatives were also evaluated based on their production of waste streams that require discharge to NRW pipelines. For the Agency's treatment facility, a treatment process requiring disposal of a waste stream would not be feasible due to the distance from the nearest NRW pipeline. Therefore, preference was given to technologies that would not produce a waste stream that needs to be discharged.

5.4.3 Evaluation of Alternatives

The treatment process alternatives were ranked according to the scale presented below:





<u>Rank</u>	<u>Definition</u>
5	Satisfies project objectives with significant noted advantages.
4	Satisfies project objectives with noted advantages.
3	Satisfies project objectives.
2	Satisfies project objectives with noted disadvantages.
1	Satisfies project objectives with significant noted disadvantages.

The results of the numerical evaluation are summarized in Table 5-4 and are described in more detail below.

**Table 5-4
 Treatment Alternative Evaluation**

Process	Process Efficiency	DPH Approval	Costs	Waste Discharge	Total Score
FXB	3	2	3	4	12
FBR	3	2	3	4	12
GAC	3	3	3	5	14
Non-Reg. IX	5	5	4	5	19
Regen IX	4	4	3	1	12
EDR	5	4	1	1	11
RO/NF	5	5	1	1	12

5.4.3.1 Process Efficiency and Robustness

Of the seven process alternatives, four are well proven, and three are less proven. The process efficiency for removal of perchlorate using the tailored GAC received a ranking of 3 since it is a relatively new product and not much data is available. Also the ability to remove perchlorate in the FXB and FBR pilot study cases was not as consistent as in the bench scale IX test, and therefore these two technologies also received a ranking of 3. The remaining technologies have been proven efficient and robust, and each received a ranking of either 4 or 5. Non-regenerable IX received the highest score due to its high selectivity for perchlorate. Regenerable IX received a slightly lower score due to the volume of brine required to regenerate the resin (replace perchlorate ions with chloride).

5.4.3.2 DPH Approval and Permitting Issues

DPH approval has already been granted to all treatment technologies evaluated in this study other than the biological processes, FXB and FBR. Although the biological processes have been given temporary DPH approval on a case by case basis, obtaining this temporary approval is a longer process than preferred. Therefore, the biological treatment alternatives were ranked lower





than the remaining processes. Tailored GAC was given a lower rating than the IX and membrane alternatives due to its relatively new arrival on the municipal market and lack of commercial availability, as previously discussed. EDR was ranked lower than RO and non-regenerable IX due to its limited number of installations across the country. Also, non-regenerable IX was ranked the highest due to its growing number of DPH approved installations across California and because the proposed resin (see Section 5.4.3.6) to be used at the plant has been proven at a number of full-scale facilities.

5.4.3.3 O&M and Capital Costs

The estimated capital and annual O&M costs were calculated for each process alternative and are listed in Table 5-5. Capital costs include concrete pads, mechanical equipment and interconnecting piping and installation. A 20 percent contingency is also included in the estimated capital costs. Enclosure costs are not included. Annual O&M costs include power, chemical addition, and media/resin/membrane replacement. Annual O&M costs do not include the labor associated with operation of the equipment.

**Table 5-5
 Summary of Capital and Annual O&M Costs**

Process	Capital Costs	Annual O&M Costs
FXB	\$2,500,000 ⁽¹⁾	\$250,000 ⁽¹⁾
FBR	\$2,300,000 ⁽¹⁾	\$220,000 ⁽¹⁾
Tailored GAC	(2)	(2)
Non-Regenerable IX	\$750,000	\$700,000
Regenerable IX	\$2,200,000	\$250,000
EDR	\$3,400,00	\$690,000
RO/NF	\$3,100,000	\$810,000

(1) Does not include post-secondary treatment facilities.

(2) Tailored GAC is not commercially available at this time; therefore, no cost is listed

Cost rankings for each of the process alternatives were assigned based on the estimates provided in Table 5-5. An average rating of 3 was provided for tailored GAC due to the limited cost information available for the technology. The biological alternatives and regenerable IX had similar costs that were slightly higher than the non-regenerable IX alternative. Therefore, the non-regenerable IX alternative received the highest score due to the lowest costs. Although regenerable IX has a much higher capital cost than non-regenerable IX, the annual resin replacement costs for the non-regenerable IX bring the present worth costs of the technology closer to that of the regenerable IX technology. The two membrane alternatives, RO/NF and EDR, were ranked the lowest due to their high capital and annual O&M costs.





5.4.3.4 Waste Discharge Requirements

Regenerable IX, EDR, and RO/NF process technologies all produce a waste stream that requires further treatment, or has considerable disposal issues. Therefore, these alternatives all received a ranking of 1. Although not considered a critical waste disposal issue, the biological alternatives, FXB and FBR, received a slightly lower score than the non-regenerable IX and GAC alternatives due to the sewer connection requirements. Non-regenerable IX and GAC received the highest score since no liquid waste streams are produced. (Non-regenerable IX and GAC could be ranked slightly lower due to the annual resin/carbon disposal requirements. However, this criterion evaluated the liquid waste discharge disposal requirements only.)

5.4.3.5 Recommended Alternative

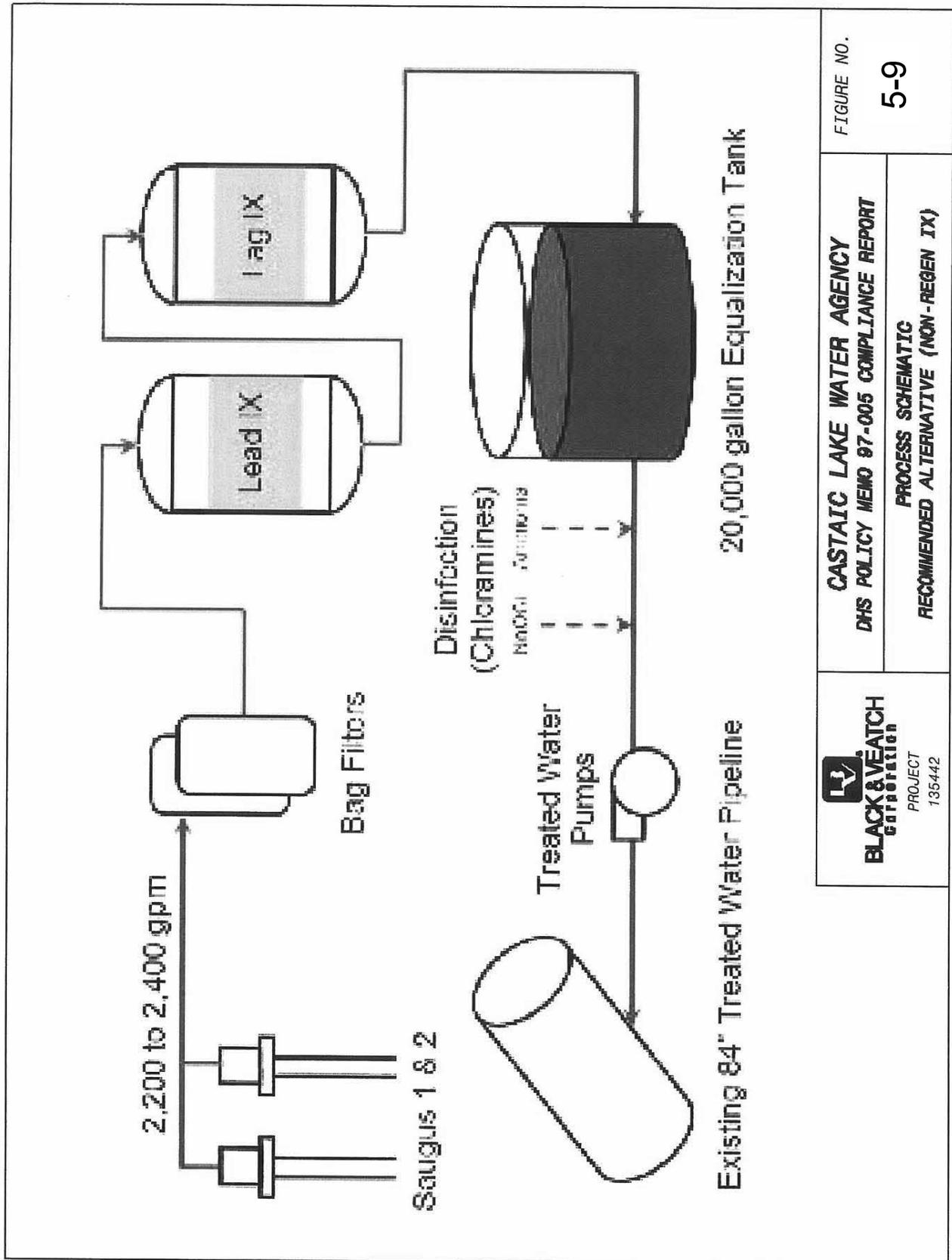
Based on the alternatives evaluation above, the recommended treatment process for the Agency's Perchlorate Treatment Plant is non-regenerable IX. This process provides superior reliability, has a multi-barrier approach to system design (dual vessels in lead-lag configuration), does not produce a brine waste requiring disposal, and is cost competitive compared to other available technologies. A brief description of the proposed system is provided below.

With an impaired groundwater source, reliability of the process is a concern that must be addressed by the treatment process. The IX process with two vessels in series would meet the objective of not having an immediate breakthrough of perchlorate. Additionally, the redundancy provided by having two vessels, each capable of treating the entire process flow, would ensure that the water would be fully treated for the removal of perchlorate despite equipment failure of one of the two vessels, or breakthrough of perchlorate in the lead vessel.

Two IX vessels, each capable of treating the entire raw water flow, would be installed in series and in lead-lag configuration. This configuration would provide a multi-barrier treatment approach to the process. The lead IX vessel would perform the bulk of the perchlorate removal. The lag vessel would be used as a "polishing" step and also provide time between the breakthrough of the lead vessel, analysis, and shutdown of the vessel. Once the resin in the lead vessel becomes exhausted, the former lag vessel would then serve as the lead vessel, and the former lead vessel would serve as the lag vessel. Figure 5-9 presents a process schematic for the recommended alternative, non-regenerable IX.

HPC reduction would be achieved by the inactivation of microbes by chlorine. If disinfection were compromised, the well pumps would be shut off. Additionally, if treatment were unsatisfactory for any reason, the wells could be shut down until the problem has been mitigated.





 BLACK & VEATCH CORPORATION PROJECT 135442	CASTAIC LAKE WATER AGENCY DHS POLICY MEMO 87-005 COMPLIANCE REPORT	FIGURE NO. 5-9
	PROCESS SCHEMATIC RECOMMENDED ALTERNATIVE (NON-REGEN IX)	



5.4.3.6 Proposed IX Resin Specifications

The resin that would be used for the non-regenerable IX treatment system is the Rohm and Haas, Amberlite® PWA2 (PWA2). PWA2 received NSF approval in September 2003 and became commercially available in the U.S. market beginning in 2004. (This is the reason it was not included in the resin bench-scale testing conducted by Carollo in 2003.) PWA2 represents U.S. Filter's most efficient perchlorate-selective resin.

PWA2 is a polystyrene divinylbenzene copolymer uniquely structured to create high selectivity for the perchlorate ion. The suggested operating conditions provided by U.S. Filter include a minimum bed depth of 24 inches and a service flow rate of 5 to 10 gallons per minute per square foot (gpm/sf). These design criteria have been established on a raw water quality design basis of 47 ppm plus 25 percent and an effluent perchlorate level less than 2 ppb. In the unlikely event that raw water concentrations exceed the design basin, PWA2 is still capable of removing perchlorate to levels below 2 ppb with only a slight, if any, reduction in resin life. Representatives from Rohm and Haas also report that nitrate peaking or spikes during startup and the first few weeks of operation will not occur when using PWA2.

Rohm and Haas Company prepared a letter to DPH in October 2003 regarding the potential for NDMA release from PWA2. This letter states that it is generally agreed that the trimethyl amine quaternary functional group used in most commonly used strong base anion exchange resins is a required precursor for NDMA formation. Independent analyses from others concluded that anion exchange resins with triethyl and tripropyl quaternary amines, which is used in manufacturing of PWA2, did not form NDMA. Therefore, it is expected that the use of PWA2 would not promote NDMA formation.

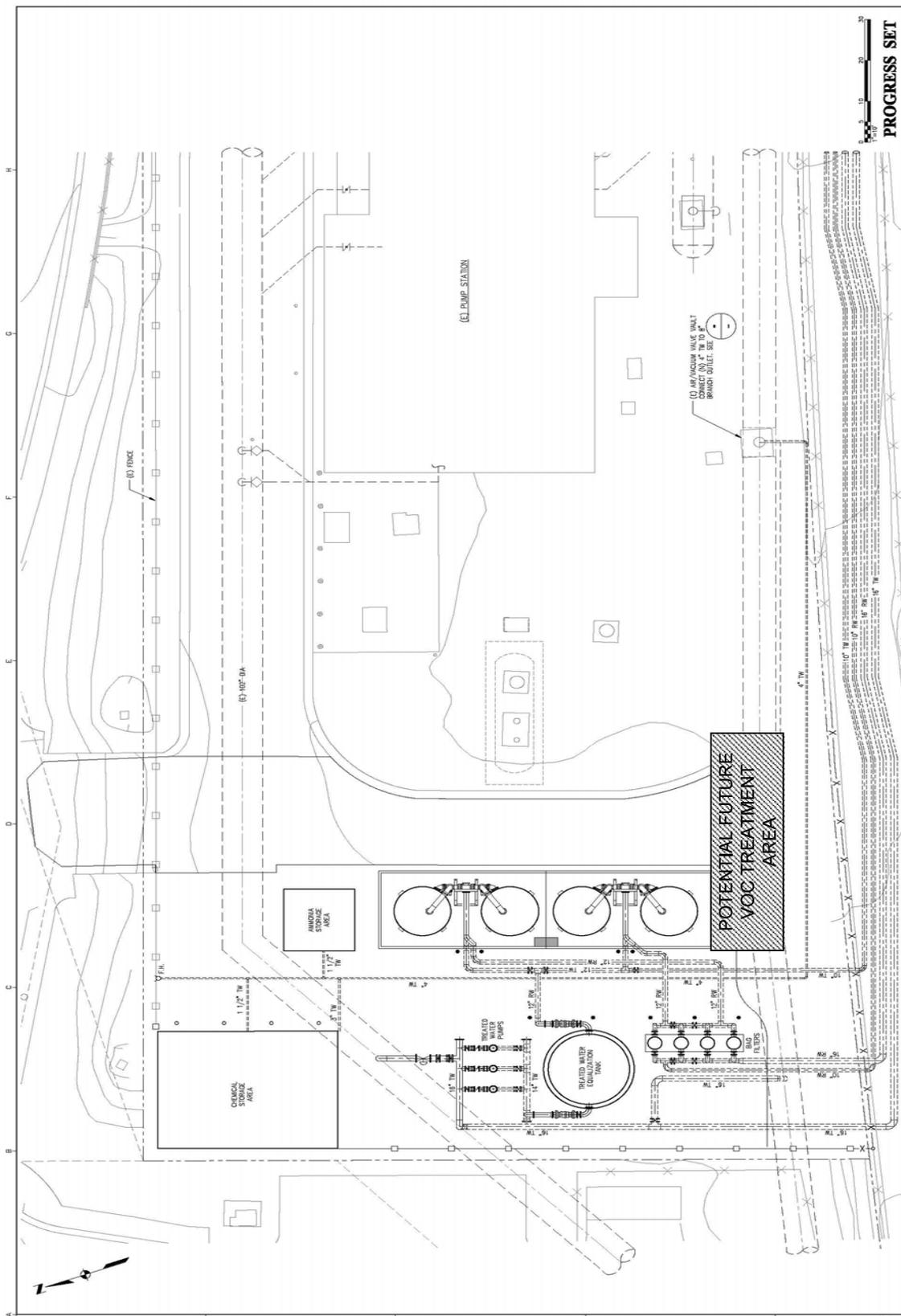
Per conversations with representatives from U.S. Filter, the proposed PWA2 resin has been installed successfully for the following agencies or locations across California:

- ▼ West Valley Water District
- ▼ City of Rialto
- ▼ Lincoln Avenue Water Company Altadena well site
- ▼ Mather Air Force Base (Aerojet Facility)

In addition, a pilot plant is currently online for the City of Whittier Cal Domestic water project. Also, a new full-scale facility is currently under design for the City of Rialto airport. Finally, it is anticipated that the PWA2 resin will be used in Fontana Water Company's facility once the next resin replacement is due.

A draft site layout is shown on Figure 5-10.





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<p>SCALES</p> <p>1" = 100'</p> <p>1/2" = 100'</p> <p>1/4" = 100'</p> <p>IF THIS BAR IS NOT ACCURATE, SCALE AS SHOWN ON DRAWING.</p>		<p>DESIGNED: JSA</p> <p>DRAWN: ROD</p> <p>CHECKED: ADJ/KCA</p>	<p>CASTAIC LAKE WATER AGENCY LOS ANGELES COUNTY, CALIFORNIA RIO VISTA WATER TREATMENT PLANT</p> <p>Kennedy/Jenks Consultants 1001 HILLDALE DRIVE, SUITE 200, GARDEN, CA 92521</p>	<p>PERCHLORATE TREATMENT</p> <p>SITE PIPING PLAN</p>
<p>DATE: APR 10, 2006 - 10:20AM</p> <p>PROJECT: CL-118A</p> <p>NO: 0589077</p> <p>DATE: APRIL 2006</p> <p>5-10</p>	<p>PROGRESS SET</p>			



5.5 VOC Contingency Planning

In response to continued concerns about VOCs observed in the vicinity of the Whittaker-Bermite facility, VOC monitoring has been incorporated into the sentinel monitoring plan described in Chapter 4. In addition preliminary design efforts have been made to identify the recommended technology and estimated footprint for VOC treatment should levels of PCE and TCE exceed drinking water requirements.

Based on a conceptual design of 2,400 gpm, KJ reviewed three alternatives for VOC treatment: GAC, Air Stripping, or advanced oxidation. Based on its proven reliability in treating the anticipated groundwater constituent, ease of integration with existing facilities, space requirements, and lack of additional mechanical requirements, it was recommended that GAC be considered for primary VOC treatment.

The layout for the footprint was based on Siemens' recommended carbon system. Siemens are also the supplier of the ion exchange vessels to be used for perchlorate removal. Their carbon system design would require an estimated footprint of close to 780 sq.ft as indicated on Figure 5-10. Table 5-6 summarizes the design criteria for the proposed VOC removal system.

Table 5-6
GAC Design Criteria for VOC Removal

Component	Value
Model	HP ® 1220SYS
Vessel Diameter, feet	12
Vessel Height, feet	5
No. of Vessels per system	2 (1 lead, 1 lag)
Overall Single System Footprint	13'8" wide x 27'10" long x 5' high
Maximum Flow, gpm	1,200 gpm
Number of Systems Required	2 (2 lead vessels, 2 lag vessels)





5.6 Operations, Maintenance, and Monitoring Plan

This section presents a proposed Operations, Maintenance, and Monitoring Plan (OMMP) for the agency to meet the requirements of DPH Policy Memo 97-005. A sample and monitoring program is proposed for the collection wells and the treatment process, and maintenance procedures are discussed. As the project becomes more clearly defined, this OMMP will be more fully developed and presented as a stand-alone document.

5.6.1 Description of Treatment Process

The non-regenerable, single-use, IX process would consist of pressurized feed water being passed through a series of pressure vessels, in lead-lag configuration, holding a packed resin bed that selectively would remove perchlorate and exchange it for chloride. The entire stream would be treated, and the treated water would be blended with treated water from the Agency's RVWTP and ESFP prior to entering the distribution system. (See Section 5.3.1.1 for a description of the available blending supplies.) All equipment used in the treatment process, including the disinfection equipment, would be on the same site, immediately adjacent to the existing Rio Vista Intake Pump Station.

5.6.2 Operation

The treatment facility would be rated as a T4 facility with the plant superintendent having a minimum treatment certificate of T4 and the shift operators having minimum treatment certificates of T3. The treatment facility would operate 365 days per year. The Agency must follow all manufacturers' recommendations for calibrating and maintaining alarms, water meters, and other instrumentation. Manufacturers' recommendations for inspection and maintenance of moving parts and equipment must also be followed. A complete Operations, Monitoring, and Maintenance Manual (OM&MM) for the treatment facility will be developed as a stand-alone document as part of the construction process of the facility.

Operators from the RVWTP will be responsible for routine maintenance and monitoring of the new perchlorate treatment facility. The facility will be monitored on a daily basis by the operators, including once on the weekends.

The sections below describe procedures for startup, normal operation, and emergency response.

5.6.2.1 Startup

Startup for the new treatment facility will occur in two steps. First, the Saugus 1 and 2 wells will be purged to remove any sediment and/or organics from the well supply resulting from the wells being out of service for several years. This raw water will be collected in Baker tanks on site and treated and discharged accordingly.

Second, upon completion of the well purging, groundwater will be pumped from the Saugus 1 and 2 wells to the treatment facility, at which time startup testing will begin for approximately





seven days. During the startup testing period, treated water from the plant will be discharged to the treated water equalization tank where perchlorate sampling will be performed. Once these samples verify that perchlorate has been removed from the source, the treated water will then be discharged to the Santa Clara River (with approval from the RWQCB and an appropriate NPDES permit). Once startup testing is complete, treated water will be pumped into the distribution system and discharge to the river will stop.

Prior to initiating normal operation, various equipment control settings must be verified. Once verified, startup can be initiated from the plant control system. A thorough inspection of the entire installation must be made prior to starting any unit to prevent accident or damage to the units. In the startup procedure, power to all equipment must be verified, and valve positioning must be confirmed.

5.6.2.2 Normal Operation

In normal operation, the plant control system would monitor the entire treatment facility and issue alarms when operating conditions are outside the specific parameters. When any portion of the treatment facility fails, causing effluent which has not been fully treated to be discharged, the treatment facility would automatically shut down.

Raw groundwater would be pumped from the Saugus 1 and 2 wells to the perchlorate treatment plant site located about 100 feet west of the Rio Vista Intake Pump Station. The treatment system would include the perchlorate treatment system, an equalization tank for hydraulic control, disinfection via chloramination and pumps to pump the treated groundwater into an adjacent 84-inch diameter treated water distribution pipeline. The proposed perchlorate treatment system provided by U.S. Filter uses 80-micron bag filters for pretreatment and two IX vessels, each rated for 2,400 gpm. The vessels contain a non-regenerable, single use, IX resin to reduce perchlorate levels to non-detectable levels (<2 ppb). The vessels would be operated in a lead-lag configuration that provides 100 percent treatment redundancy. The perchlorate levels from the lead vessels would be monitored by routine sampling for breakthrough. When perchlorate concentration in the lead vessel reaches >4 ppb, the resin would be removed from the lead vessel and disposed at a permitted incineration facility, and new resin would be installed in the lead vessel. The lead vessel would be changed to the lag position, and the lag vessel would assume the lead position by operating manual valves.

The treated water from the perchlorate treatment system would be discharged to a 20,000-gallon treated water equalization tank and pumped by treated water pumps to an existing 84-inch treated water pipeline located south of the Rio Vista Intake Pump Station. Aqueous ammonia and chlorine needed for disinfection would be added to the treated groundwater before it is pumped into the 84-inch treated water pipeline.





5.6.2.3 Emergency Response Procedures

5.6.2.3.1 High Heterotrophic Plate Count or Total Coliform Count

The wells must be tested for coliform on a monthly basis per the DPH standard monitoring schedule. If coliform bacteria are detected, the well(s) need not be immediately shut down. Instead, the plant process must be adjusted (to ensure continuous disinfection), disinfection must be increased, and the frequency of monitoring of the finished water must be increased to ensure a safe coliform level in the water exiting the plant. However, a well in which coliform counts have been detected should be temporarily removed from service, flushed or disinfected and flushed again until it is coliform-negative.

5.6.2.3.2 Water Quality Noncompliance

All water treated by the facility must meet all MCLs, PHGs, and NLs established by DPH and must comply with the California Drinking Water Standards. If the water does not comply with these standards, the treated effluent cannot be distributed to the public for domestic use until the cause of the exceedance is remedied or additional treatment is provided to meet the standards. During periods of noncompliance, the wells can be removed from service.

5.6.2.3.3 Equipment Failure

Water treatment efficiency is dependent upon individual items of equipment to varying degrees. While all treatment is dependent upon raw water pumping, failure of other pieces of equipment can often be tolerated for a short period of time before treatment efficiency begins to deteriorate. All critical units and processes have parallel facilities capable of handling the plant design flow should an equipment failure occur. The Agency should have a written procedure for emergency manual disinfection of the water in case the automated disinfection system fails.

5.6.2.3.4 Plant Shutdown

If the plant must be shut down due to a disaster or major equipment failure, other water sources must be placed on line to make up for the lost production. The Agency shall have procedures for placing these alternative water sources on line.

5.6.2.3.5 Records and Reports

A summary of operations and monitoring data shall be submitted to DPH on a monthly basis, including total daily flow, daily hours of operation, influent and effluent concentrations, volume of spent resin produced, and resin change-out dates.

A report summarizing and assessing the treatment system performance during the previous year shall be submitted annually and include the following:

- ▼ Detailed discussion of action taken in the previous year including IX resin change out, treatment unit maintenance, monitoring changes, operational changes and problems, water quality problems, and corrective actions.





- ▼ For each monitoring point, a graph of the laboratory analytical data for all samples taken since the start of the treatment.
- ▼ A written summary of monitoring results since the last annual report.
- ▼ An evaluation of the performance of each IX column during the previous year.

5.6.3 Monitoring and Sampling

The sections below present the water quality sampling and monitoring plan for the perchlorate treatment facility.

5.6.3.1 Groundwater Monitoring

Wells shall be sampled in accordance with the most recent edition of the Vulnerability Assessment and Monitoring Frequency Guidelines developed by DPH. All water samples shall be analyzed by state certified laboratories using drinking water analytical methods.

5.6.3.2 Non-Regenerable IX System Monitoring

System operating parameters should be logged daily once per shift. Parameters outside the expected range should be noted and reported to the shift supervisor immediately. Operators should also enter substantive system events or occurrences in the plant operating log. In addition to the monitoring of normal operating parameters, system diagnostic monitoring should be performed periodically. This should include routine calibration of analog instruments as well as process analyzers, since these are relied on as prime indicators of system performance.

5.6.3.3 Finished Water

Chlorine and aqueous ammonia would be added to the water being treated to produce a combined chlorine residual of approximately 2.5 to 3.5 mg/L (as Cl₂) in the distribution system, prior to the first service connection. The total chlorine concentration, pH, and temperature should be recorded daily. In order to verify the removal efficiency in the IX vessels, perchlorate sampling would be performed on the lead and lag vessels on a daily and weekly basis respectively until the life of the resin has been verified on the full-scale basis, and then in accordance with the permit issued by DPH.

5.6.3.4 Alarms

The perchlorate treatment system and well pumps would be monitored remotely through the supervisory control and data acquisition (SCADA) system from the RVWTP, which is manned 24 hours per day. The perchlorate treatment system would be connected to the existing Rio Vista Intake Pump Station SCADA system located adjacent to the perchlorate treatment system, which is linked by a fiber optics cable to the RVWTP. Telemetry would be used for communications between the well pumps and the perchlorate treatment system. The following parameters would be monitored by the SCADA system:





- ▼ Pump status (ready, run, fail) for well pumps, raw water pumps, treated water pumps and chemical feed pumps
- ▼ Pump speed for raw and treated water pumps
- ▼ Perchlorate treatment system flow
- ▼ IX vessel differential pressure
- ▼ Chemical tank levels
- ▼ Treated water equalization tank
- ▼ Pressure downstream of well pumps
- ▼ Chlorine residual

Alarm conditions for the perchlorate treatment system would include pump fail for well pumps, raw water pumps, treated water pumps and chemical feed pumps, high/low tank levels for chemical tanks, raw and treated water equalization tanks, high/low pressure for well pumps, and high/low chlorine residual.

Critical alarms will be used for added protection including high tank levels, failure of both raw water pumps, failure of both treated water pumps, failure of both chemical pumps, failure of one of the well pumps and high/low chlorine residual. In the event of a critical alarm condition, the perchlorate treatment system would be shut down by turning off pumps to prevent water from the perchlorate treatment system from entering the 84-inch treated water pipeline or spilling into the treatment system enclosure. The perchlorate treatment plant would also be shutdown in the event of a shutdown of the distribution pipeline or as initiated by RVWTP operators.

Operators at the RVWTP would be notified via the SCADA system to attend to the alarm condition at the perchlorate treatment plant or wells. After a perchlorate treatment system shutdown, the perchlorate treatment operation would not resume until the critical alarm condition has been corrected.

5.6.3.5 Sampling

Table 5-7 provides a preliminary sampling schedule for the proposed perchlorate treatment facility. It should be noted that there is additional monitoring and sampling to be carried out as part of the Source Water Protection Plan, described in Chapter 4. The sampling schedule provided in Table 5-7 should be followed post-startup, during normal plant operation. Additional startup-related sampling is discussed below.

The Department requires that potable wells be absent of coliforms. As coliforms do not appear to be an issue, well flushing prior to operation should ensure that all coliform concentrations are non-detect. In addition the continued monitoring of HPCs will identify the presence of bacterial colonies in the Saugus production wells.





**Table 5-7
 Compliance and Process Control Sampling Schedule**

Location	Daily	Weekly	Monthly	Quarterly	Annually
Individual Wells			Coliforms; HPC	Hardness; Total alkalinity; chloride; Nitrate; sulfate; pH; Fe; Manganese; Turbidity; VOCs; TDS	Title 22 and vulnerable constituents; TICs and unknowns
Combined Influent	pH; Turbidity; TDS; Hardness; Total Alkalinity; Chloride	Nitrate; sulfate; perchlorate ¹		Fe; Manganese; TOC; DOC	HPCs
Effluent from Lead Vessel	Chloride; perchlorate ¹				
Effluent from Lag Vessel	TDS; Chloride	Hardness; Total Alkalinity; Perchlorate; Nitrate; HPCs; Total coliform			
Effluent from Equal. tank	pH; Turbidity; Total chlorine; Temperature	HPCs; Total coliform		Fe; Manganese	

¹ Perchlorate sampling will be performed on influent daily and the lead and lag vessels on a daily and weekly basis respectively until the life of the resin has been verified on the full-scale basis, and then in accordance with the permit issued by DPH.

The equipment manufacturer, U.S. Filter, and the proposed resin supplier, Rohm and Haas, were contacted for information regarding startup sampling and other recommendations. Comments received from DPH were also included in the additional preliminary startup sampling protocol below:

- ▼ Sample all seven nitrosamines (as discussed in Section 5.3.2.3) at 30 minutes, two days, and seven days after startup.
- ▼ Conduct daily sampling of perchlorate on the combined influent and effluent from the lead/lag vessels for the first seven days after startup. Once the perchlorate removal efficiency has been verified, perchlorate sampling for the combined influent and effluent from the lag vessel may be performed in compliance with the approved DPH permit. Daily perchlorate sampling on the effluent from the lead vessel should remain on a daily basis until the life of the resin has been verified on a full-scale basis.
- ▼ Although nitrate spikes are not anticipated with the proposed PWA2 resin, daily nitrate (and sulfate) sampling should be conducted during the startup period for verification.





5.6.4 Maintenance

5.6.4.1 Equipment Maintenance

The Agency shall follow all manufacturers' recommendations for inspection and maintenance of equipment. The Agency shall maintain records of these maintenance activities for at least five years. Leak testing of all critical valves should be performed annually.

Routine maintenance of equipment includes cleaning, lubricating, adjusting, repairing, and painting the equipment and keeping adequate maintenance records. Proper equipment maintenance permits the facility to operate without emergency shutdowns. With proper maintenance, the equipment can be expected to last its full anticipated service life.

The O&M manuals for the treatment facility should be updated based on the first year of operational experience.

5.6.4.2 Preventative Maintenance

An automated software program should be used for managing the preventative maintenance of the system equipment. A routine program of preventative maintenance ensures an availability of equipment and increases the reliability of plant performance. Preventative maintenance tasks for major equipment shall be determined once major equipment is installed.





6.0 HEALTH RISK ASSESSMENT

6.1 Overview

This chapter presents the human health risk assessment for the project. Potential risk is characterized in terms of carcinogens and non-carcinogens. The raw water quality data used for this risk assessment to establish the contaminants of interest in the Saugus 1 and Saugus 2 wells was collected from a sampling program carried out by Carollo Engineers (see Chapter 3). The Source Water Assessment described in Chapter 2 was also referenced.

The impact of a short term treatment failure was assessed. An analysis of the intended treatment process and the operational and control safeguards in place was completed to determine a conservative frequency of failure on one day a year to be used for the risk analysis of the Saugus Wells.

In order to identify the screening levels for the risk assessments, various literature and internet sources were researched for drinking water quality standards or criteria that could be used to screen the contaminants of interest and identify contaminants of potential concern (COPC). Regulatory levels researched include OEHHA PHGs, USEPA and DPH MCLs, USEPA drinking water health advisories (HAs), and DPH NLs. Perchlorate was identified as the only COPC (i.e., the only contaminant of interest that exceeded a screening level) requiring risk assessment. Hazard information and toxicity values were located and compared to estimates of exposure (intake) to determine whether there were potential concerns for human health risk under the defined treatment failure and exposure scenario.

Results indicated that, even when treatment failure is considered, there are minimal potential human health concerns related to ingestion of perchlorate in drinking water obtained from the Saugus Wells. Although perchlorate concentrations could exceed the MCL in untreated water, this risk assessment indicates that the likelihood of consumption of perchlorate at its maximum recorded level is highly unlikely and that suitable controls and safeguards have been incorporated into the design.

6.2 Risk Assessment Objectives

In compliance with DPH Policy Memo 97-005 requirements, the assessment consisted of five stages:

- ▼ Data gathering to summarize all information already gathered to date in the evaluation of the Saugus Wells as a potential restored water source.
- ▼ An evaluation of the risks of failure of the proposed treatment system.
- ▼ An assessment of potential health risks associated with this short term failure of the proposed treatment system. The health assessment considered the duration of exposure to



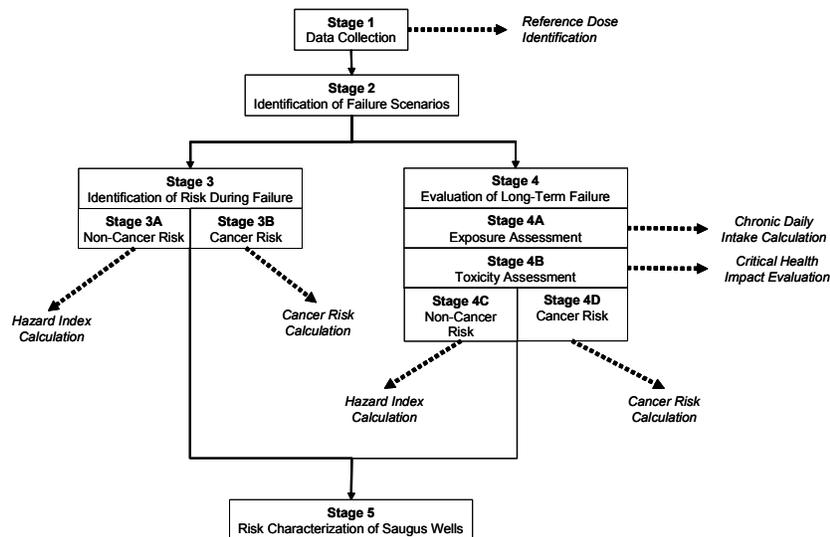


contaminated drinking water that would result from a failure, the human health risks associated with exposure to insufficiently treated or untreated water, and the potential cumulative risks due to multiple failures.

- ▼ An assessment of potential health risks expected over time inclusive of the short term failure.
- ▼ An evaluation of processes and controls in place to minimize or eliminate likelihood of water of inadequate quality reaching the tap.

Several documents related to risk assessment and/or setting regulatory or non-regulatory standards for contaminants in drinking water were consulted for guidance in conducting this risk assessment. These included the Risk Assessment Guidance for Superfund Volume 1, Human Health Evaluation Manual (Part A), or RAGS A, (USEPA, 1989a); OSWER Directive 9285.7-53 (OSWER, 2003), a memo identifying the hierarchy of toxicity values for use in Superfund risk assessments; Guidelines for Authors of EPA Office of Water Health Advisories for Drinking Water Contaminants (USEPA, 1989b); Guide to Public Health Goals (PHGs) for Chemicals in Drinking Water (OEHHA, 2003a), A Guide to Health Risk Assessment (OEHHA, 2001), and Policy Memo 97-005 (DHS, 1997). Figure 6-1 presents a diagram of the methodology of the risk assessment process used in this document. Table 6-1 outlines the key activities and results sought of each stage of the assessment. More details regarding the specific methods used are provided in subsequent sections of this chapter.

**Figure 6-1
 Risk Assessment Schematic**





**Table 6-1
 Stages of the Risk Assessment**

Task	Description	Results
Data Collection and Evaluation	Gather and analyze relevant site data and identify COPCs: <ul style="list-style-type: none"> ▼ Collect current raw water quality data for each source being assessed. ▼ Identify COPCs. ▼ Identify basis/assumptions for risk assessment. 	Raw water quality values, COPCs.
Evaluation of Failure Scenarios	Characterize potential for adverse health effects to occur. Identify process safeguards. Determine likelihood of short term failure.	"Worst-worst" frequency of failure.
Human Health Risk for Short Term Failure		
Risk Characterization	Estimate cancer risks, estimate noncancer hazard quotients during failure.	"Worst-worst" Noncancer hazard quotient and cancer risk estimates.
Human Health Risk from Long Term Failure		
Exposure Assessment	Characterize the potential exposure to each COPC that might be consumed by an average person drinking treated water over a lifetime, taking into consideration exposure during an assumed water treatment failure scenario.	Intake, or Chronic Daily Intake (CDI).
Toxicity Assessment	Identify qualitative and quantitative toxicity information and determine appropriate toxicity values for each COPC.	Potential hazards and toxicity values associated with COPCs.
Risk Characterization	Estimate cancer risks, estimate noncancer hazard quotients, evaluate uncertainty, and summarize risk information.	Noncancer hazard quotients, cancer risk estimates.

6.3 Data Collection and Evaluation

In order to evaluate the potential health risks posed by exposure to the proposed raw water supply, a comprehensive review of the water quality in the contaminated Saugus 1 and Saugus 2 wells, as well as in surrounding sources shown to impact these groundwater supplies, was completed (see Chapter 3). A series of samples was taken to characterize the contaminant concentrations in raw water from these wells. All of this data has been presented in Chapter 3 and Appendices E, F, and G.

The source water assessment and raw water quality characterization identified the following contaminants of interest: boron, cadmium, lead, manganese, nickel, nitrate (or nitrate/nitrite), perchlorate, PCE, TCE, and TTHMs (see Section 3.5.2 for more details).





The following drinking water quality standards/criteria were identified for each contaminant of interest: California and federal MCL and SMCL, USEPA MCLG, USEPA drinking water concentration at 10^{-6} cancer risk level (negligible risk concentration) for carcinogens with MCLG of zero, California NLs, California PHGs, and USEPA drinking water HAs. The following sources were searched for these standards/criteria, and the most recent standards/criteria were identified when sources did not agree.

- ▼ Websites or documents used to identify California MCL, SMCL, and PHG include *MCLs, DLRs and PHGs for Regulated Drinking Water Contaminants* (DHS, 2008); *MAXIMUM CONTAMINANT LEVELS AND REGULATION DATES FOR DRINKING WATER CONTAMINANTS: USEPA VS DHS* (DHS, 2008); and *MCLs, DLRs, and Unregulated Chemicals Requiring Monitoring* (DHS, 2008).
- ▼ California notification levels (previously called “action levels”) were identified from the *California Drinking Water Notification Levels* website (DHS, 2007).
- ▼ USEPA MCL, MCLG, and HA were identified from the *2004 Edition of the Drinking Water Standards and Health Advisories* (USEPA, 2004a).
- ▼ USEPA MCL or Treatment Techniques (TT), MCLG, SMCL, and action levels (AL) were identified using the *List of Drinking Water Contaminants & MCLs* (USEPA, 2008).

Table 6-2 presents the contaminants of interest identified and their associated water quality standards/criteria and raw water concentrations (average and maximum) for Saugus 1 and 2 wells. For each contaminant, the maximum concentration in Table 6-2 is the greatest value recorded in either of the Saugus Formation Wells, and the average concentration is an average for both wells.





**Table 6-2
 Raw Water Contaminant Concentrations and Selected Drinking Water
 Quality Standards or Criteria for Contaminants of Interest**

Chemical	Units	Concentration		CA OEHHA				USEPA			USEPA Health Advisories (HA)				
		Maximum	Average	MCL	PHG	NL	SMCL	MCL	MCLG	SMCL	Concentration at 10 ⁻⁶ Cancer Risk Level (ug/L)	One-day (10-kg child)	Ten-day (10 kg child)	Life-time	Status
Boron	µg/L	324	306	---	---	1000	---	---	---	---	NA	4000	900	600	Draft 1992
Cadmium	µg/L	1.0	ND	5	0.07	---	---	5	5	---	NA	40	40	5	Final 1987
Iron	µg/L	199	193	---	---	---	300	---	---	300	NA	---	---	---	---
Lead	µg/L	0.53	0.52	TT	2	---	---	15 (AL,TT)	0	---	NA	---	---	---	---
Manganese	µg/L	12	11	---	---	500	50	---	---	50	NA	1000	1000	300	---
Nickel	µg/L	10	6	100	12	---	---	---	---	---	NA	1000	1000	100	Final 1995
Nitrate (as NO ₃)	mg/L	18.3	13.4	45	45	---	---	---	---	---	NA	---	---	---	---
Nitrate (as N)	mg/L	4.2	3.0	---	10	---	---	10	10	---	NA	10	10	---	Draft 1993
Nitrite (as N)	mg/L	ND	ND	1	1	---	---	1	1	---	NA	1	1	---	Draft 1993
Nitrate/Nitrite (as N)	mg/L	ND	ND	10	10	---	---	10	10	---	NA	---	---	---	Draft 1993
Perchlorate	µg/L	60	50	---	6	6	---	---	---	---	NA	---	---	---	---
PCE	µg/L	ND	ND	5	0.06	---	---	5	0	---	0.07 (Calc'd, Not available in IRIS)	2000	2000	10	Final 1987
TTHM	µg/L	ND	ND	100	---	---	---	80	---	---	---	---	---	---	---
Chloroform	µg/L	ND	ND	---	---	---	---	---	[70]	---	NA	4000	4000	70	---
Bromodichloromethane (BDCM)	µg/L	ND	ND	---	---	---	---	---	0	---	0.6 (IRIS), 1.0 (USEPA, 2003)	1000	600	NA	Draft 2003
Dibromochloromethane (DBCM)	µg/L	ND	ND	---	---	---	---	---	60	---	0.4 (IRIS), 0.8 (USEPA, 2003)	600	600	60	Draft 2003
Bromoform	µg/L	ND	ND	---	---	---	---	---	0	---	4 (IRIS), 8 (USEPA, 2003)	5000	200	NA	Draft 2003
TCE	µg/L	1	0.75	5	0.8	---	---	5	0	---	0.09 (Calc'd, Not available in IRIS)	h	---	---	Final 1987

NA = Not applicable
 1 Basis for contaminants on this table include contaminants identified in source water assessment and contaminants identified during raw water quality sampling. See Chapter 3.
 Sulfate: USEPA drinking water health advisory intended to protect against acute laxative effects (USEPA, 2003).
 Concentration: Values marked with ND are non-detect. ½ detection limit is substituted in calculations for concentrations less than the detection limit.
 ****Title 22 California Code of Regulations presents this SMCL as ranges, with 250 mg/L as the recommended SMCL, 500 mg/L as the upper SMCL, and 600 mg/L as the short term SMCL.
 USEPA HA: Health Advisories for 10-kg child
 Nitrate and nitrite HAs are calculated for a 4-kg infant and are protective for all age groups (USEPA 2004, Drinking Water Standards and Health Advisories).
 PCE: tetrachloroethylene, or perchloroethylene
 TCE: trichloroethylene
 TTHM: total trihalomethanes, or the sum of the individual trihalomethane (THM) compounds: chloroform, bromoform, bromodichloromethane, and dibromochloromethane.
 The MCL for total trihalomethanes (TTHMs) is based on the total concentration of the four individual trihalomethanes (THM), so there are no MCLs for the individual THMs.
 Cancer groups are from USEPA 2004.
 MCL under review in 2004 (USEPA 2004, Drinking Water Standards and Health Advisories) for Boron and TCE
 Lead (at tap) and copper are regulated by a treatment technique (TT). The action level (AL) for lead is 0.015 mg/l or 15 ug/L. If more than 10% of tap water samples exceed the action level, additional actions might be triggered including additional monitoring and corrosion control treatment.
 Silver SMCL is set to protect against angria, or skin discoloration, which is not harmful to human health.
 Cancer information for individual THMs (other than chloroform) was taken from USEPA, 2003, NPDWR; Stage 2 DBPR; NPDWR, Approval of ... (which is updated from the Stage 1 DBPR).
 Currently there is no MCLG for chloroform. An MCLG of 0.07 mg/L was proposed by USEPA in its Stage 2 DBPR [Proposed Rule] based on a cancer RfD, an assumption that a person drinks 2 L of water per day (90th percentile of intake rate for the U.S. population).
 ****Chloroform According to the 1999 Draft Guidelines for Carcinogen Risk Assessment (which have been superseded by the 2005 Guidelines for Carcinogen Risk Assessment, "chloroform is likely to be carcinogenic to humans by all routes of exposure under high
 Per instructions in IRIS, the conversion factor for converting NO₃ (nitrate) to NO₃-N (nitrate-nitrogen) is 1 mg nitrate-nitrogen = 4.4 mg nitrate
 Manganese RID is dietary manganese. The lifetime HA included a 3-fold modifying factor to account for increased bioavailability from drinking water (USEPA, 2004).

Although Fe was initially identified as a contaminant of interest, it was determined not to be a cause for potential concern for human health (see Chapter 3 for details) and therefore eliminated from further evaluation. The remaining contaminants of interest were screened to identify COPCs for the risk assessment. Contaminants were included on the list of COPCs when their concentrations exceeded the California PHG or NL or federal MCL, HA, or NL. After the screening was completed, only perchlorate remained as a COPC based on its exceedence of the California MCL of 6 ppb. This MCL was based on the preceeding PHG of 6 ppb as issued by OEHHA. In addition USEPA recently determined a reference dose (RfD) for perchlorate.

To assess the potential risk to human health related to contaminants in the treated drinking water, the concentrations of contaminants in treated water must be described. As discussed in Chapter 5, the proposed IX treatment process specifically targets perchlorate for removal and has a final





water quality goal of 2 ppb, or $\mu\text{g/L}$, for perchlorate. The water concentrations of the remaining contaminants of interest were assumed to remain relatively constant from source to distribution. These concentration data were collected from two sources.

- ▼ Where available, the historical water concentration data was used, as these values are representative of the Saugus Formation Wells in operation.
- ▼ Alternatively, the average concentration in treated water from Table 6-3 was used as a conservative estimate. These concentrations are based on the sampling event completed for the raw water characterization.

Table 6-3
Contaminant Treated Water Quality Estimates Used for Risk Analysis

Chemical	Units	Water Quality Concentration	Source
Boron	$\mu\text{g/L}$	306	sample
Cadmium	$\mu\text{g/L}$	1	sample
Lead	$\mu\text{g/L}$	0.52	sample
Manganese	$\mu\text{g/L}$	11	sample
Nickel	$\mu\text{g/L}$	6	sample
Nitrate (as NO_3)	mg/L	11	historical
Perchlorate	$\mu\text{g/L}$	4*	Chapter 4
PCE	$\mu\text{g/L}$	0.5	sample
Silver	$\mu\text{g/L}$	0.5	sample
Sulfate	mg/L	130	historical
TTHMs	$\mu\text{g/L}$	0.5	sample
TCE	$\mu\text{g/L}$	0.75	sample

* Although the treatment goal is equal or less than 2 ppb, the detection limit for DPH reporting purposes is used for this analysis.

Chapter 5 describes the method used to estimate a treated water concentration of 2 $\mu\text{g/L}$ for perchlorate. Although the treatment goal is equal to or less than 2 ppb for perchlorate, the detection limit for DPH reporting purposes (4 $\mu\text{g/L}$) was used for this risk assessment.

6.4 Evaluation of Failure Scenarios

6.4.1 Background

The treatment methods intended to facilitate the reintroduction of the Saugus 1 and Saugus 2 were designed to provide an additional safe drinking water resource that meets applicable Title 22 and federal drinking water regulations. These wells were initially taken out of service due to consistent levels of perchlorate detection exceeding the PHG (now an MCL). A sampling





program was conducted on Saugus Wells 1 and 2 to characterize this impaired water source (see Chapter 3).

This analysis characterized the water of the Saugus Wells as moderately buffered, hard water with moderate concentrations of dissolved oxygen and dissolved solids. Perchlorate was observed to exceed the PHG, now MCL, of 6 ppb. HPCs were detected at elevated levels in both Saugus Wells following a relatively limited redevelopment process. Although other contaminants were detected at elevated levels, no other contaminant consistently exceeded its drinking water standard.

The intended treatment facilities that will be used to remove perchlorate and provide disinfection have a design capacity of approximately 3.2 mgd. A series of bench scale tests and a paper study analysis determined US Filter Non-Regenerable IX with post-treatment chlorine addition as the best-fit technology for perchlorate removal.

6.4.2 Evaluation of Failure Scenarios

The purpose of this assessment is to ensure that every precautionary measure has been taken to prevent human consumption of non-potable water and that every reasonable effort has been made to minimize the human health risk in the event of treatment failure. This section summarizes the conclusions regarding likelihood of failure and human health risk associated with that failure.

The design of the intended treatment system was based on the results of bench scale testing and a performance analysis paper study that analyzed several treatment options based on the following criteria:

- ▼ Process Efficiency and Robustness
- ▼ DPH Approval and Permitting Issues
- ▼ O&M and Capital Costs
- ▼ Waste Discharge Requirements

The design details of each treatment option are described in Chapter 5.

In every category, the Non-Regenerable IX method satisfied all project objectives with significant noted advantages, exceeded other possible treatment options in all categories, and, therefore, proved to be the most appropriate technology for complete removal of perchlorate. The lead-lag design of IX facility ensures this removal despite failure of one of the two vessels, or breakthrough of perchlorate in the lead vessel. The combination of the IX removal process and post-treatment disinfection addresses all contaminant concerns identified by the raw water analysis and protects against human health risk to a level exceeding DPH regulations.





It is recognized that, due to historical data available from surrounding aquifers, other contaminants, in particular VOCs, are still a concern. The Source Water Protection Plan will be implemented to alleviate these concerns. Sentinel monitoring of the Saugus Formation and surrounding wells will monitor perchlorate levels and VOC concentrations. It should also be noted that the design assessment determined that there remains sufficient square footage on site to incorporate an air stripping unit, a granular activated carbon facility, or the best available treatment method in the event that VOCs are detected at concentrations requiring treatment or other concerns need to be addressed. For more details on recommended VOC technologies, see Section 5.5.

The primary goal of the preliminary operations plan is to protect against untreated water leaving the facility and entering the distribution system. The Water Treatment Plant (WTP) and well pumps would be monitored remotely through the SCADA system from the nearby RVWTP, which is manned 24 hours per day. System parameters for the IX treatment system will be logged once per shift. Daily sampling of influent and effluent perchlorate and chlorine levels along with daily chlorine residual testing will be taken until the life of the resin has been verified on a full-scale basis. Following this procedure, the plant will continue to be monitored online remotely and grab samples will be completed in accordance with the DPH permit. This ensures that both target contaminants have been sufficiently removed. Furthermore, when any portion of the treatment facility fails, causing effluent which has not been fully treated to be discharged, the treatment facility would be shut down.

As discussed in Chapter 5, blending is also an opportunity to reduce the impact of any untreated water going into distribution due to failure. It is intended for treated water from the WTP to be conveyed to an existing 84-inch diameter treated water pipeline. This pipeline is currently used to convey an average of 30 mgd of treated water from the Agency's RVWTP and/or the ESFP to the distribution system. In addition, the equalization tank at the effluent to the treatment facility will dilute any immediate discharge of untreated water.

Considering the method of design selection targeting complete perchlorate removal, sentinel monitoring of all known contaminant concerns in the Saugus and surrounding wells, and 24 hour monitored operation of the facility, a twenty-four hour failure once a year is a conservative, worst-worst case failure scenario for this water treatment system and represents a higher failure rate than expected.

6.5 Assessment of Potential Health Risks During Short Term Failure

This section identifies the human health risk presented by the short term failure of the Saugus Treatment Facility. In order to do so, the hierarchy of regulations is established that defines the screening levels for good water quality and the non-cancer hazard and carcinogen risk levels for any contaminants in excess of these regulations calculated.





6.5.1 Identification of Regulations

The hierarchy of regulations needs to be established to determine what represents suitable water quality to be consumed by the public. In accordance with recent guidance from DPH, PHGs were used as the primary screening levels for key contaminants in the Saugus Wells. If PHGs were not available, the following sources were used to identify screening levels:

1. DPH NLs
2. OEHHA's Prop 65 values for carcinogens expressed in terms of concentrations for 10⁻⁶ risk level
3. EPA Integrated Risk Information System (IRIS)
4. EPA Region 9 Preliminary Remediation Goals (PRGs) for drinking water

These levels have been identified for each COPC determined from the Source Water and Raw Water Characterization Assessments. Values are presented in Table 6-4.

**Table 6-4
 Risk Assessment Results of Short-Term Failure Analysis**

Chemical	Units	MCL	Governing Regulations for Assessment (in order of hierarchy used)				Concentration		Water Hazard ID	Hazard Index for Contaminants in excess of Regulations	
			PHG	NL	Prop 65	IRIS ^{***}	Maximum	Average		Maximum	Average
Boron	µg/L	---	---	1000	---	7000	324	306	nc	---	---
Cadmium*	µg/L	5	0.07	---	---	17.5	1.0	ND	nc	14.286	---
Lead	µg/L	TT	2	---	15	---	0.53	0.52	nc	---	---
Manganese	µg/L	---	---	500	---	4900 ^{^^}	12	11	nc	---	---
Nickel	µg/L	100	12	---	---	700	10	6	nc	---	---
Nitrate (as NO3)	mg/L	45	45	---	---	56	18.3	13.4	nc	---	---
Nitrate (as N)	mg/L	---	10	---	---	---	4.2	3.0	nc	---	---
Nitrite (as N)*	mg/L	1	1	---	---	3.5	0.05	0.05	nc	---	---
Perchlorate	µg/L	---	6	6	---	24.5	60	50	nc/ca	10.000	8.333
Silver	µg/L	---	---	---	---	175	0.5	0.5	nc	---	---
Sulfate ⁺⁺	mg/L	---	---	---	---	---	194	146	nc	---	---
PCE*	µg/L	5	0.06	---	14	0.35	ND	ND	ca	---	---
TTHM*	µg/L	80	---	---	---	---	---	---	ca	---	---
TCE*	µg/L	5	0.8	---	50	---	ND	ND	ca	---	---

* Average and/or maximum were non-detect. For evaluation and calculation purposes the concentration has been listed here as half the detection limit.

nc non-cancer

ca cancer

⁺⁺ Sulfate's don't have a PHG, NL or Region 9 EPA. In this case the SMCL, which corresponds to the USEPA one-day health advisory will be used.

ND Contaminant was reported as below the detection limit for reporting purposes

TT Lead (at tap) and copper are regulated by a treatment technique (TT). The action level (AL) for lead is 0.015 mg/l or 15 µg/L. If more than 10% of tap water samples exceed the action level, additional actions might be triggered.

^{^^} This is an RfD for food consumption. The RfD for water consumption has not been assessed

^{***} This limits are calculated from the IRIS RfD assuming that the average weight per person in 70kg and each person consumes 2 Liters/day.





6.5.2 Calculation of Risk

Calculation methods for the Hazard Index (HI) for non-carcinogens and cancer risk for carcinogens have been established. For the purposes of this assessment the HI is a ratio of the untreated raw water concentration to the MCL or PHG. If the HI is less than 1, there is no potential for non-cancer human health risk to occur. If the HI is greater than 1, there is a potential for non-cancer human health risk to occur, and the toxicity endpoints need to be considered.

$$HI = \frac{Actual.concentration}{PHG}$$

Unlike the hazard assessment, for any carcinogens potentially consumed at concentrations above the screening level, the period of exposure needs to be taken into account. The cancer risk is calculated as a ratio of the untreated raw water concentration to the concentration that has proved to pose a risk of 10^{-6} or less for the exposure duration evaluated in Section 6.5.1 over a lifetime period of 70 years. The calculated cancer risk has the units, 10^{-6} .

$$Cancer.Risk = \frac{Actual.concentration}{PHG} \times \frac{(Exposure(days / year) \times 70 years)}{\left(\frac{365 days}{year} \times 70 years\right)} \times 10^{-6}$$

This risk assessment was calculated for both average and maximum concentrations using the raw water quality data presented in Table 6-2 as presented and validated in Chapter 3, and the expected treated water quality presented in Table 6-3. Compared to the proposed screening levels, there are currently no carcinogenic risks posed by consumption of untreated well water from the Saugus Wells. It is determined that only perchlorate would enter the distribution system at levels above any health advisory should a short-term failure of the treatment facility occur, therefore no toxicity endpoint assessment needs to be completed. The assessment results are shown in Table 6-4.

The non-cancer HI during system failure was calculated as greater than one due to consumption of perchlorate. However, the estimated exposure to this COPC was conservative, as was the use of MCLs to estimate risk considering the automated controls in place to prevent treatment failure. This calculation also assumes that the water is consumed directly without any dilution or blending. Furthermore, it is expected that the average and maximum concentrations of perchlorate in the well will drop following a period of Pump-and-Treat as identified in Chapter 4. Therefore, the risk of a human health incident is minimal.

6.5.3 Conclusions of Short-term Failure Assessment

The short-term failure assessment of the Saugus Wells indicates that maximum safeguards and redundancies are in place to protect against human health risk. The water treatment processes intended for use for the Saugus Formation Wells have been designed to prevent treatment failure. Automated controls will be in place to facilitate plant shutdown in the event that water quality





requirements are not met or treatment equipment are seen to fail. 24 hour monitored operation will ensure that alarms indicating well or pump failure are acted upon. In addition, sampling will confirm progress of IX units and treated water quality. Therefore, a one-day-a-year failure represents a very conservative, worst-worst case failure scenario. If failure were to occur, perchlorate could reach the distribution system at levels above its MCL. However, blending would reduce the potential human health risks of this unlikely event.

6.6 Long-Term Human Health Risk Assessment

An additional assessment was also completed to determine any long-term risk presented by the use of the Saugus Wells. This assessment was completed in accordance with USEPA guidelines and has been used for previous 97-005 assessments.

6.6.1 Exposure Assessment

In a human health risk assessment, exposure is defined as the contact of a human with a chemical or physical agent. The objective of the exposure assessment is to estimate the type and magnitude of exposures to the COPC. The exposure assessment presented in this chapter was based on data gathered in Section 6.3. Exposure assessments commonly involve the following steps.

- ▼ Analysis of the Site and Associated Contaminants
Describe characteristics of the site and analyze contaminant releases or concentrations.
- ▼ Identification of Potentially Exposed Populations
Establish characteristics of the population potentially exposed to the COPC. Identify populations in terms of total number, sensitive subpopulations, activity patterns, and potential future growth.
- ▼ Identification of Potential Exposure Pathways
Identify significant routes of exposure to the COPC.
- ▼ Estimation of Exposure Concentrations for Pathways
Estimate the concentrations of contaminants occurring in the exposure media for the pathways of interest.
- ▼ Estimation of Contaminant Intakes (Doses) for Pathways
Define the magnitude, frequency and duration of exposure for exposure pathways in terms of contaminant intakes (doses).





6.6.1.1 Analysis of the Site and Identification of Potentially Exposed Populations

The water supplied from the Saugus Formation wells by CLWA would provide water to a service area of 192 square miles. Within this area, the Agency would service four other retail agencies: SCWD, Newhall Valley Water District (NVWD), Valencia Water Company (VWC), and Los Angeles County Water District No. 36. Water usage in the area would comprise, but not be limited to, six key activities including single family residential (39 percent), multi-family residential (21 percent), commercial and industrial (10 percent), agricultural (24 percent), recreation (4 percent), and public uses (2 percent) such as cleaning and environmental purposes. (Data regarding estimated sensitive subpopulations in the area have been reviewed as part of the Urban Water Management Plan [UWMP] recently conducted by Black & Veatch, SA Associates, and Reiter/Lowry/Consultants.)

The recommended treatment process for the Agency's Perchlorate Treatment Plant is non-regenerable IX and disinfection (see Chapter 5 for more details).

6.6.1.2 Identification of Potential Exposure Pathways

For this risk assessment, there was one measurable exposure pathway relevant to this treatment facility included for assessment: consumption of drinking water. The single COPC (perchlorate) was identified in Section 6.3. Groundwater contamination by perchlorate is a relatively complex issue. Perchlorate contamination in the environment stems mainly from its primary use as a solid propellant in rockets, missiles, and other pyrotechnics such as fireworks. Emerging evidence suggests that the release of perchlorate into the soil and groundwater is due to open burn/open detonation of the above items. Major perchlorate contamination has been found in groundwater and wells adjacent to facilities that produce and/or test products using perchlorate. Cleanup of contaminated groundwater is underway at many current and former Department of Defense facilities as well as at other associated sites, including at the Whittaker Bermite Facility.

USEPA is currently undertaking efforts to determine whether regulation of perchlorate in drinking water with a MCL would represent a meaningful opportunity for reducing risks to human health. To support its decision, USEPA is gathering occurrence data at public water systems. In addition to being detected in some drinking water samples, perchlorate has been reported to occur in some fruits and vegetables, bottled water, commercial dairy milk samples, and human breast milk. However, the number of samples is too small to provide a meaningful assessment of human exposure to perchlorate through diet.

6.6.1.3 Estimation of Exposure Concentrations

For Superfund risk assessments, the contaminant concentration term (CW) used to calculate contaminant intake is representative of the arithmetic average of the concentration over the exposure period. For this risk assessment, intake was calculated twice for perchlorate, once using the average concentration (50 µg/L) in the raw water from the Saugus wells to represent the concentration during treatment failure and once using the maximum concentration (60 µg/L) in





the Saugus wells as a more conservative estimate of the concentration during treatment failure. The purpose was to characterize variation in intake if the one-day treatment failure should occur during a period of average concentration or during a period of maximum concentration. The perchlorate concentration for the remainder of the year, during normal treatment operation, was assumed to be the estimated treated water concentration of 2 µg/L. Although the treatment goal is equal or less than 2 ppb, the detection limit for DPH reporting purposes is 4µg/L. This value is used for calculation purposes.

6.6.1.4 Estimation of Contaminant Intakes

The treatment approach, 24-hour monitoring, potential for blending, and sampling schedule detailed in the Monitoring and Treatment Methods Evaluation (Chapter 5) would minimize the risk of customers receiving untreated or incompletely treated water via equipment fails or variation in water quality. However, the possibility of human error adds some element of risk. A worst case scenario would be represented by a situation in which an error occurs immediately following a sampling event or a power failure. It is prudent and conservative to assume that the maximum length of time that untreated or partially treated water could be discharged into the distribution system is one day. It is highly conservative to assume that treatment failure would occur once each year. Therefore, the risk assessment and associated intake calculations for the COPC, perchlorate, were based on a treatment system failure for a period of one day each year.

Contaminant Concentration

See Section 6-3 above.

Ingestion Rate

The ingestion rate (IR) reflects the amount of contaminated medium contacted per unit time or event. For Superfund risk assessments, the USEPA recommends using the 95th percentile value (or 90th if the 95th percentile is not available) for this variable if statistical data are available (USEPA, 1989a). For this risk assessment, an ingestion rate of 2 L/day (90th percentile) was assumed for consistency with the IR used in the development of MCLG for drinking water.

Exposure Frequency and Exposure Duration

Exposure frequency (EF) and exposure duration (ED) are used to estimate the total time of exposure. The USEPA bases MCLG for non-carcinogen drinking water contaminants on RfDs, which is an estimate of the amount of a chemical to which a person can be exposed on a daily basis that is not anticipated to cause adverse health effects over a lifetime of exposure. For carcinogens, intakes are commonly calculated by prorating the total cumulative dose over a lifetime, i.e., by calculating the CDI or lifetime average daily intake (LADD) (USEPA, 1989a). The current IRIS carcinogenicity assessment (last revised 02/18/2005), based on USEPA's Draft Revised Guidelines for Carcinogen Risk Assessment, led USEPA to conclude that perchlorate is not likely to be carcinogenic to humans, at least at doses below those necessary to alter thyroid hormone homeostasis. For this risk assessment, lifetime ED of 70 years was assumed.





When long-term contact such as drinking water exposure is assessed, a daily EF (i.e., 365 days/year) is assumed. To ensure maximum public protection, the assumptions used in this risk assessment were conservative and based on a worst case scenario. It was assumed that, if treatment failure occurred, contamination to the water supply would occur for a maximum of one day prior to stand-by prevention, repair, or plant shutdown, so EF for exposure to untreated water is one day per year.

Body Weight

The body weight (BW) used in calculating the intake is the average BW over the exposure period. CDI, which describes lifetime exposure, is calculated by taking the time-weighted average of exposure estimates over all age groups. In the past, for pathways such as drinking water exposure, where contact rate to BW ratios are fairly constant over a lifetime, a 70 kg BW was typically assumed (USEPA, 1989a). Recent research (USEPA, 1997) indicates that the recommended mean value for adults should be 71.8 kg. However, for the purposes of this study, a value of 70 kg was assumed for consistency with the cancer slope factors and unit risks found in the USEPA Integrated Risk Information System (IRIS) and because the USEPA assumes a body weight of 70 kg in the development of MCLG.

Averaging Time

The averaging time (AT) selected depends on the type of toxic effect being assessed. When evaluating longer-term exposure to non-carcinogenic toxicants, intakes are calculated by averaging intakes over the period of exposure. For this risk assessment, lifetime exposure duration (70 years) with exposure to drinking water for 365 day/year was assumed as a conservative estimate.

Calculation of Intakes

In the event of a worst case failure, the risk should be evaluated in terms of the CDI of untreated well water, also known as the Intake. Using the assumptions and variables described above in Section 6.4 and the data collected in Section 6.3, intake was calculated using the following equation:

$$CDI = \frac{CW_1 * IR * EF * ED}{BW * AT} + \frac{CW_2 * IR * (365day/yr - EF) * ED}{BW * AT}$$

- Where CW₁ = Average/Max Chemical Concentration in Untreated Water, mg/L
- CW₂ = Chemical Concentration in Treated Water, mg/L
- IR = Ingestion Rate, 2 L/day
- EF = Exposure Frequency, 1 day/year
- ED = Exposure Duration, lifetime of 70 years
- BW = Body Weight, 70 kg
- AT = Averaging Time, ED (70 years) x 365 days/year





Following the screening of each COPC against their respective California MCL as described in Section 6-3, the only contaminant of concern seen as a risk in the Saugus Wells was perchlorate. Table 6-5 shows the calculated CDI for perchlorate using the average and maximum concentrations presented in Table 6-2. Calculations representing two scenarios are presented. CDI_{ave} represents the CDI of perchlorate assuming that a treatment failure takes place under average conditions such that the water consumed for one day during treatment failure contains the average COPC concentration in the untreated raw water. CDI_{max} represents the worst case scenario in which a failure occurs when the COPC concentrations in the untreated raw water are greatest. Considering the assumptions made and the sampling data used for the calculations, this dose represents the maximum 1-day exposure that can be reasonably expected to occur in a person's lifetime.

**Table 6-5
 Estimated Intakes (CDI) and Non-Cancer Hazard Indices for Perchlorate**

Source	Contaminant	Concentration During Failure (mg/L)	Concentration Normal (mg/L)	CDI Chronic Daily Intake mg/kg/day	Oral Chronic RfD (mg/kg-day)	Non-Cancer Hazard index
CDI AVE Calculations (Average Well Water quality)						
	Perchlorate	0.05	0.002	0.000061	0.000700	0.0870
CDI MAX Calculations (Maximum Well Water quality)						
	Perchlorate	0.06	0.002	0.000062	0.000700	0.0881

6.6.2 Toxicity Assessment

The purpose of the toxicity assessment is to evaluate the potential for exposure to COPCs to cause adverse effects in the exposed population and to evaluate the relationship between intake and likelihood of adverse effects for those contaminants. The only COPC whose average concentration exceeds its MCL was identified in Section 6.3. The toxicity assessment is often split into a hazard assessment and a dose-response assessment. The hazard assessment is a qualitative evaluation of the potential for exposure to the COPC to result in adverse effects. The dose-response assessment is a quantitative evaluation of toxicity information and characterizes the relationship between the intake (dose) and the likelihood of adverse effects.

6.6.2.1 Hazard Identification

For this section, data was collected regarding the hazards of all contaminants of interest. Hazard identification typically involves reviewing studies of the effects of COPC on humans or representative laboratory animals to identify the types of adverse effects that could result from exposure to the COPC. This data is presented in Table 6-6. The cancer risk data is shown in Table 6-7.





**Table 6-6
 Chronic Non-Cancer Toxicity Data for Contaminants of Interest**

Contaminant	Non-cancer RfD (mg/kg-day)	Confidence Level for RfD	Critical Effect	Uncertainty Factor (UF)	Modifying Factor
Boron	0.2	High	Decreased fetal weight (developmental) in rats	66	---
Cadmium	0.0005	High	Significant proteinuria	10	1
Lead	NA, (1)	NA	Neurotoxicity, developmental delays, hypertension, impaired hearing, etc.	NA	NA
Manganese	0.05; (3)	Medium	Central nervous system effects	1	3
Nickel	0.02	Low - Medium	Decreased body and organ weights	300	1
Nitrate (as NO ₃)	---	---	Early clinical signs of methemoglobinemia	---	---
Nitrate (as N)	1.6	High	Early clinical signs of methemoglobinemia	1	1
Nitrite (as N)	0.1	High	Methemoglobinemia	1	10
Nitrate/Nitrite (as N)	---	---	Methemoglobinemia	---	---
Perchlorate	0.0007	High	Inhibition of radioiodide uptake into the thyroid	10	---
PCE	0.01	Medium	Hepatotoxicity in mice, weight gain in rats	1000	1
TTHM	---	---	Varies by individual THM	---	---
Chloroform	0.01	Medium	Moderate/marked fatty cyst formation in liver, elevated SGPT	1000	1
BDCM	0.003 (USEPA, 2004a); (4)	Medium	Renal cytomegaly	1000	1
DBCm	0.02	Medium	Hepatic lesions	1000	1
Bromoform	0.03 (USEPA, 2004a); (4)	Medium	Hepatic lesions	1000	1
TCE	0.007 (USEPA, 2004a); (5)	---	Effects on liver; (6)	---	---

1. There is no apparent threshold for some effects, so an RfD could not be calculated.
2. The laxative effect of sulfate is acute rather than chronic. USEPA does not recommend a RfD because of limitations of available data for assessing risks.
3. When assessing exposure to manganese from drinking water, a modifying factor (MF) of 3 is recommended (IRIS), so the RfD of 0.14 mg/kg-day provided in IRIS was divided by MF=3 to obtain the RfD used here.
4. Oral RfDs were available in IRIS for BDCM (0.02 mg/kg-day) and bromoform (0.02 mg/kg-day), but these RfDs were located in the latest draft of the Drinking Water Criteria Document on Brominated Trihalomethanes (USEPA, 2003c) and appear to be more up-to-date than the IRIS record.
5. Not available in IRIS.
6. The critical effect was not available in IRIS or in USEPA (2004a) but was found in USEPA, 2002.





**Table 6-7
 Cancer Risk Data for Contaminants of Interest**

Contaminant	Oral Slope Factor (mg/kg-day) ⁻¹	Weight of Evidence Descriptor
Boron	NA	D; (8)
Fe	NA	D
Cadmium	NA	D; (4)
Lead	NA; (7)	NA; (7); B2 (USEPA, 2004a)
Manganese	NA	D
Nickel	NA	---
Nitrate (as NO3)	NA	E
Nitrate (as N)	NA	E
Nitrite (as N)	NA	E
Nitrate/Nitrite (as N)	NA	E
Perchlorate	NA	(1)
Silver	NA	D
Sulfate	NA	D
PCE	0.54; (5)	B2
TTHM	---	---
Chloroform	NA	(2)
BDCM	0.035; (6)	(2)
DBCM	0.043; (6)	(3)
Bromoform	0.00456; (6)	(2)
TCE	0.4; (5)	NA; (7); B2 (USEPA, 2004a)

- Under USEPA's Draft Revised Guidelines for Carcinogen Risk Assessment, perchlorate is not likely to pose a risk of thyroid cancer in humans, at least at doses less than those that alter thyroid homeostasis (IRIS).
- Likely to be carcinogenic to humans by all routes of exposure.
- Suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential.
- Cadmium is given a weight of evidence characterization of B1, probably human carcinogen, but is given a D weight of evidence characterization in the 2004 Drinking Water Standards and Health Advisories. IRIS does not list a quantitative estimate of carcinogenic risk from oral exposure because there are no positive studies of orally ingested cadmium suitable for quantitation. Although there is sufficient evidence of carcinogenicity in rats and mice other routes, studies in rats and mice administered cadmium salts orally showed no evidence of carcinogenic response.
- Cancer slope factors were not available in IRIS for PCE or TCE. Oral slope factors were taken from USEPA Region 9 2004 PRG Tables. The California OEHHA slope factor was the same as USEPA's for PCE but different for TCE.
- Cancer slope factors were available in IRIS for BDCM (0.062), DBCM (0.084), and bromoform (0.0079), but these new slope factors have been proposed in the Stage 2 DBPR [Proposed Rule] on the basis of the 1999 Draft Guidelines for Carcinogen Risk Assessment.
- Not available in IRIS.
- Under the 1999 Draft Guidelines for Carcinogen Risk Assessment, Data are inadequate for assessment of human carcinogenic potential.

The hazards for the COPC (perchlorate) identified in this study were previously identified in the development of a PHG (CA OEHHA, 2004) and USEPA's RfD (IRIS report, 2005; Nuclear





Regulatory Commission [NRC], 2005) for perchlorate. The critical effect identified by both agencies was inhibition of iodide uptake by the thyroid. Because the thyroid requires iodide for synthesis of thyroid hormones, reduced iodide uptake could result in reduced thyroid hormone production by the thyroid.

Thyroid hormones influence growth and maturation of tissues; cell respiration and total energy expenditure; and turnover of essentially all substrates (including carbohydrates, cholesterol, proteins, vitamins, and hormones). The thyroid gland uses the sodium iodide symporter (NIS) protein to take up iodide, which is essential for synthesis of thyroid hormones. Blood concentrations of thyroid hormones are controlled to meet the changing requirements of the body by a negative feedback system involving the hypothalamus, pituitary, and thyroid gland (the hypothalamic-pituitary-thyroid axis, or HPT axis). When blood thyroid hormone levels decline, the HPT axis stimulates the thyroid to increase thyroid hormone synthesis. When blood thyroid hormone concentrations exceed the needs of the body, these hormones exert negative feedback on the HPT axis, ultimately decreasing their own concentrations in the blood. Perchlorate has been shown to inhibit iodide uptake to the thyroid gland by competing with iodide for the NIS. Therefore, health effects of perchlorate are expected to be similar to those caused by iodine deficiency. Because perchlorate inhibits iodide uptake, it can interfere with thyroid hormone synthesis when exposure occurs for sufficient duration and intensity, resulting in reduced blood thyroid hormone concentrations such that negative feedback on the HPT axis is released. The HPT axis becomes overstimulated, resulting in goiter and other symptoms associated with iodine deficiency (CA OEHHA, 2004).

Pregnant women with mild or severe hypothyroidism and their fetuses were identified as sensitive subpopulations. Clinical effects of hypothyroidism in infants vary widely depending on whether the pregnant woman, fetus, or both are hypothyroid and the duration of hypothyroidism following birth. Abnormalities are greatest when both mother and fetus are affected. Severe combined maternal and fetal hypothyroidism during fetal life and in newborn infants can result in effects such as microcephaly (small brain), mental retardation, deaf-mutism, paraplegia or quadriplegia, and movement disorders. These abnormalities are irreversible, but can be largely prevented by administration of iodide during critical stages of development. Infants of mothers who have mild iodide deficiency might have enlarged thyroids and elevated serum thyroid-stimulating hormone (TSH) or thyroglobulin (TG) concentrations at birth. Newborn infants with hypothyroidism might have abnormalities such as lethargy, poor muscle tone, poor feeding, constipation, and persistent jaundice. These effects are reversible by treatment with thyroid hormone. Some studies suggest that infants born to mothers who have low serum thyroxine levels early in pregnancy might have impaired neurodevelopment. More detailed descriptions of potential health effects are provided elsewhere (NRC, 2005; OEHHA, 2004). (NRC, 2005; OEHHA, 2004).

A study by Greer et al. (2002) was used to identify the point of departure for development of USEPA's RfD and the benchmark dose (BMD) used by OEHHA to develop its PHG. The "Greer study" is a clinical study on groups of healthy adult men and women to investigate the health





effects resulting from experimental administration of perchlorate to human volunteers. Each volunteer was given a constant dose of 0.007 mg/kg-day to 0.5 mg/kg-day day for 14 days. A no observed effect level (NOEL) for inhibition of iodide uptake by the thyroid was observed at 0.007 mg/kg-day. No significant changes in blood thyroid hormone concentrations occurred at all doses used in the study (NRC, 2005).

The point of departure (POD) is the dose-response point that marks the beginning of a low-dose extrapolation. In other words, it is the numerical toxicity value used as the starting point for determining an RfD. Inhibition of iodide uptake by the thyroid in humans was identified by these studies as the key biochemical effect to be used as a POD to derive the RfD, but this is not an adverse effect. The approach differs from those used previously in this type of analysis in that the POD selected is not an adverse effect but is an even safer, more protective endpoint because inhibition of iodide uptake must precede an adverse event. USEPA applied a uncertainty factor (UF) of 10 to the POD to ensure that the resulting RfD would be protective of the most sensitive population identified, the fetus of a pregnant woman who has low iodide intake or hypothyroidism. No UF related to duration of exposure is recommended because a 14-day exposure was considered sufficient to capture the greatest effect on iodide uptake. Extensive human and animal studies demonstrate that there is no progression to adverse effects if inhibition of iodide uptake does not occur. Iodide uptake actually might be expected to increase after longer exposures due to onset of compensatory mechanisms in the body. A total UF of 10 was considered adequate for the protection of sensitive subgroups because a conservative approach was used in setting the RfD, i.e., using a NOEL for a non-adverse endpoint as the POD. Confidence in the RfD is considered to be high. (NRC, 2005; IRIS record, 2005)

DPH has been in the process of adopting new regulations setting a drinking water MCL for perchlorate. The process is now complete, with the new regulations having an effective date of October 18, 2007. If perchlorate is detected and confirmed at concentrations greater than this MCL, the water agency is required to notify the local government and to contact DPH within 48 hours and Tier 1 notification must be initiated. (DPH, October 2007).

Perchlorate is not included in the list of chemicals known to cause cancer or reproductive toxicity as part of "Proposition 65" of the Safe Drinking Water and Toxic Enforcement Act of 1986 (CA OEHHA, 2005). USEPA's current carcinogenicity assessment for perchlorate (IRIS, last revised 02/18/2005) was based on USEPA's Draft Revised Guidelines for Carcinogen Risk Assessment. USEPA concluded that perchlorate is not likely to be carcinogenic to humans, at least at doses below those necessary to alter thyroid hormone homeostasis. NRC (2005) concluded that the available epidemiologic evidence is not consistent with a causal association between perchlorate and congenital hypothyroidism, changes in thyroid function in normal-birth-weight or full-term newborns, or hypothyroidism or other thyroid disorders in adults (NRC 2005).





6.6.2.2 Dose-Response Assessment

The information obtained during the data collection and hazard identification stages was used to estimate the amount of a chemical likely to result in a particular health effect in humans. Non-cancer health effects, such as asthma, nervous system disorders, birth defects, and developmental problems in children, typically become more severe as exposure to a chemical increases, and it is assumed that there is some threshold dose below which there is no adverse response. The relationship between dose and response is shown by a dose-response curve.

Perchlorate can inhibit uptake of iodide without decreasing thyroid hormone levels because the body has strong mechanisms for compensating. According to NRC (2005), a prolonged decrease in iodide intake or other damage to the thyroid is necessary to overwhelm compensatory mechanisms. Inhibition of iodide uptake is not an adverse effect, but a reversible biochemical precursor event, i.e., it is a prerequisite event that occurs prior to any adverse effects. NRC considers hypothyroidism (deficient thyroid hormone production) to be the first adverse effect in the sequence of events that may follow perchlorate ingestion. If the precursor event is prevented, adverse effects cannot occur. Furthermore, according to NRC (2005): "...it is highly likely that in people with a normal iodide intake the dose of perchlorate would have to reduce thyroid iodide uptake by at least 75 percent for a sustained period (several months or longer) for iodide uptake and thyroid hormone production to decline enough to cause adverse health effects... In adults, that is likely to require sustained exposure to more than 30 mg of perchlorate per day (0.4 mg/kg-day for a 70-kg person)..." High doses of perchlorate administered to people for short periods of time can reduce iodide uptake, but compensation mechanisms exist to prevent this precursor effect from resulting in a subsequent adverse effect, and inhibition of iodide uptake is reversible upon removal of perchlorate.

Five studies in humans were judged to be particularly important. In these studies, healthy adult men and women were given doses of potassium perchlorate for periods up to 6 months. Doses ranged from 0.007 to 9.2 mg/kg/d. Doses of 0.007 mg/kg/d did not produce a statistically significant inhibitory effect on thyroid uptake of radiolabeled iodide, which is first step at which perchlorate might act on thyroid activity. Greater doses inhibited radiolabeled iodide uptake, but even a dose that caused up to 65 percent inhibition of iodide uptake did not result in reduced thyroid hormone levels. (NRC, 2005)

In the Greer study, which was used as the POD for both the OEHHA PHG and the USEPA RfD for perchlorate, radiolabeled iodide uptake was measured in adult men and women exposed to four doses of perchlorate ranging from 0.007 – 0.5 mg/kg/d for 14 d (Greer et al., 2002). The lowest dose did not cause a statistically significant inhibition of uptake of radiolabeled iodide. Without decreased iodide uptake, progression to reduced thyroid hormone production (adverse event) does not occur. The four other human studies had nearly identical results, and a broad array of epidemiologic studies in humans uniformly showed agreement with safety levels near that recommended by the NRC. Some animal studies and occupational studies of people exposed to large amounts of perchlorate also were compatible. NRC considered data from epidemiology studies of the general population to be limited with respect to their ability to





establish causality and unsuitable to serve as the basis for quantitative risk assessment (NRC, 2005).

For more details related to the potential hazards and dose-response relationships for perchlorate, see NRC (2005), OEHHA (2004), and the IRIS report (2005) for perchlorate. A summary of the toxicity values and toxicity data to be used in the risk characterization is presented in Tables 6-6 and 6-7.

6.6.3 Risk Characterization

In the risk characterization phase of a risk assessment, the potential for adverse health effects to occur is characterized. Cancer risk levels and non-cancer hazard quotients are calculated. A summary of the calculations for potential adverse effects is presented, along with a discussion of uncertainty. A discussion of these results is presented in the next section.

6.6.3.1 Characterizing Non-carcinogen Risk

Non-cancer risk is usually determined by comparing the actual level of exposure to a chemical, calculated as the CDI in Section 6.6.1, to the level of exposure that is not expected to cause any adverse effects, even in the most susceptible people, established as the RfD. The RfD is determined with the assumption that thresholds exist for certain toxic effects such as cellular necrosis and is an estimate of the daily exposure to the human population (including sensitive subgroups and uncertainty factors) likely to be without an appreciable risk of deleterious effects during a lifetime (USEPA, 1993.) CDI and non-cancer RfD values for perchlorate are listed in Table 6-5.

Using these values, the potential risk can be evaluated as the ratio of exposure to toxicity, referred to as the Non-Cancer Hazard Quotient. The Non-Cancer Hazard Quotient assumes that there is a level of exposure which, if exceeded, may be cause for concern for potential non-cancer effects. It is calculated as follows:

$$Quotient = \frac{E}{RfD}$$

where E = Exposure Level, in this case equivalent to intake or CDI
 RfD = Reference dose, mg/kg-day

The calculated Non-Cancer Hazard Quotients for perchlorate are presented in Table 6-5.

The MCL for perchlorate was based on the previous PHG set by OEHHA. OEHHA used assumptions and variables to set its PHG for perchlorate that differed from assumptions used by USEPA to derive its RfD. OEHHA assumed a ratio of body weight to tap water consumption rate of 25.2 kg-day/L, which is the estimated ratio for the 95th percentile of the pregnant woman population (OEHHA, 2004), as opposed to the equivalent value of 34 kg-day/L (or 70 kg /





(2L/day) typically assumed by USEPA to develop drinking water equivalent levels (DWEL). OEHHA also used the Greer study to identify its point of departure, but used the BMD, or more specifically the lower limit of a one-sided 95 percent confidence interval of a benchmark dose limit (BMDL), as the POD rather than the lowest observed effect level (LOEL). The BMD and BMDL were 0.0068 mg/kg-day and 0.0037 mg/kg-day, respectively. Note that the BMDL is less than the LOEL of 0.007 mg/kg-day used as the point of departure to derive the USEPA RfD. Both USEPA and OEHHA applied a UF of 10 to account for interindividual variability. OEHHA also applied a RSC of 0.6 to account for exposure to perchlorate in food. Given that BMDL / UF would be roughly equivalent to the USEPA RfD, an estimated RfD based on variables used to determine the PHG would be $0.0037 \text{ mg/kg-day} / 10 = 0.00037 \text{ mg/kg-day}$. To calculate a dose that could be ingested from drinking water, accounting for some perchlorate ingestion in food, the estimated RfD is multiplied by the relative source contributor (RSC) of 0.6 to arrive at an estimated oral RfD for drinking water alone of 0.00022 mg/kg-day.

If the CDI is recalculated using OEHHA's assumed body weight to drinking water intake ratio for pregnant women (all other assumptions remaining the same as USEPA's), the CDI_{max} is 0.000165 and the Non-Cancer Hazard Index is 0.74, which is still less than 1, indicating no concern for potential adverse health effects.

6.6.3.2 Characterizing Risk for Carcinogens

Perchlorate is not likely to pose a cancer risk for humans.

6.6.4 Discussion of Long-Term Risk

Even assuming that treatment failure occurs when the perchlorate concentration is at its maximum, the CDI for perchlorate does not exceed the RfD, i.e., the Non-Cancer Hazard Index is less than 1, indicating no concern for potential adverse health effects. This is true regardless of whether the intakes and RfDs used to estimate the hazard index are derived using typical USEPA methods for determining MCLG or using OEHHA methods for determining PHGs. The critical effect used to develop the USEPA RfD and the California BMDL is inhibition of iodide uptake by the thyroid. Inhibition of iodide uptake is not an adverse effect but a reversible biochemical precursor event, i.e., it is a prerequisite event that occurs prior to any adverse effects. If the precursor event is prevented, adverse effects cannot occur. Furthermore, according to NRC (2005): "...it is highly likely that in people with a normal iodide intake the dose of perchlorate would have to reduce thyroid iodide uptake by at least 75% for a sustained period (several months or longer) for iodide uptake and thyroid hormone production to decline enough to cause adverse health effects... In adults, that is likely to require sustained exposure to more than 30 mg of perchlorate per day (0.4 mg/kg-day for a 70-kg person)..." High doses of perchlorate administered to people for short periods of time can reduce iodide uptake, but compensation mechanisms exist to prevent this precursor effect from resulting in a subsequent adverse effect.

One area of uncertainty is the potential for interindividual differences in response to perchlorate exposure. Although relatively large doses are thought to be required to substantially reduce





radioiodide uptake and subsequent thyroid hormone production, the dose of perchlorate required to cause a decrease in thyroid hormone production may be lower in pregnant women, infants, children, and people with low iodide intake or pre-existing thyroid dysfunction (NRC, 2005). Furthermore, exposure to other goitrogens is common, and the potential for additive or interactive effects of these with perchlorate is not well-understood. However, even with an exposure scenario based on conservative assumptions designed to be protective of public health, it is anticipated that consumers would be exposed to perchlorate concentrations greater than the MCL for only one day per year. The half-life for perchlorate in humans is short (about 6-8 hours), so clearance from the body is rapid (NRC, 2005). Even when radioiodide uptake is inhibited, this effect is transient and reversible upon clearance (NRC, 2005).

6.7 Summary

The Non-Regenerable IX treatment system with disinfection has been designed with the necessary safeguards in place to protect against entry of untreated water into the distribution system. Recognizing the treatment technologies are not 100 percent failure proof, a thorough risk analysis was completed. An analysis of all operational and controls precautions in place identified a “worst-worst” treatment failure scenario of one day a year. Screening of the raw water quality identified only perchlorate as a COPC that exceeds its MCL. However, both the evaluation of hazards during failure and the long-term assessment identified minimal potential risk to human health. Even in the event of a one-day failure, blending capabilities will minimize the risk to human health. In addition, sentinel monitoring systems are in place to identify any future COPCs, and additional square-footage is available on-site to design and install the best-fit technologies if required in the future.





7.0 ALTERNATIVE SOURCES

7.1 Overview

This chapter identifies and evaluates alternative sources to the Saugus 1 and 2 wells. Six alternative sources are described in terms of quality, availability, and their potential risk to human health in comparison to the treated water from the Saugus Formation Wells.

Chapter 2 identifies several potential sources of contamination in the Saugus Formation. Among them, the Whittaker Bermite Facility presented key concerns due to previous waste disposal including potential contamination with perchlorate (non-carcinogen), and PCE and TCE (potential carcinogens). Through the analysis of the raw water quality of Saugus 1 and 2, a list of COPCs was developed, from which the overall source water risk could be evaluated. This chapter expands the list to include any contaminant that exceeded its regulatory limit in any one of the six alternative sources from four agencies: SCWD, NCWD (3 possible sources), VWC, and Los Angeles County Water District No. 36.

For the source comparison presented in this chapter, an EPA-based risk assessment was performed on each source using a list of COPCs compiled from the source water assessment and raw water characterization in Chapters 2 and 3. While the Saugus Wells are seen to only have one COPC, it is possible that alternative sources in the region may have other COPCs. Results of this analysis showed that, although the carcinogenic risks of the six alternatives were comparable, the total non-carcinogenic risk of the treated Saugus Formation Wells was the lowest, and the risk of health effects was most unlikely if Saugus 1 and 2 were used for water supply. Short-term treatment failure was not deemed applicable as most alternatives only used disinfection to treat their water supply; short-term failure to disinfect would have little or no impact on water quality due to the chlorine residual in the pipe. A review of the UWMP determined that all alternative sources were already being used to capacity and that the Saugus Formation Wells were essential to restore capacity for CLWA, even in the event of a single dry year.

7.2 Methodology of the Alternative Source Evaluation

Four other water agencies were identified, in addition to CLWA, as potential supplies for use, one of which has three possible sources. These agencies were: NCWD, VWC, Los Angeles County Water District No. 36, and SCWD.

All six sources are currently in operation with no treatment processes other than disinfection of groundwater except for the CLWA surface water. The CLWA water is treated in one of two filtration plants: RVWTP and ESFP. The treatment process includes upflow clarifiers, deep bed media filters, ozonation, and chloramination. The objective was to compare the quality and quantity of water to the water in the distribution system from all alternatives. Thus, raw water qualities with disinfection were compared to that of the expected treated water quality of the





Saugus Formation Wells. The comparison included potential impacts of a once a year failure event, described in Chapter 6.

Initially, the physical characteristics of each water source were evaluated. In order to evaluate the potential risks related to these water sources, their water was also analyzed for contaminants of concern that, historically, have exceeded their MCL, PHG, or NL. The potential health risks associated with these sources were estimated using an EPA-based method and the raw water quality data for each contaminant from each purveyor. This assessment took place in four stages: data collection and evaluation, exposure assessment, toxicity assessment, and risk characterization. The conclusions of this quantitative and qualitative analysis of each source were compared to those analyses carried out for the Saugus Formation Wells to determine the more favorable water source. The likely effects of treatment failure and the available capacity from each alternative were also assessed.

7.3 Identification of Alternatives

The November 2005 UWMP identifies four local retail water agencies in CLWA's service area. With the exception of CLWA, each purveyor draws groundwater from the Upper Santa Clara River Groundwater Basin, East Subbasin. This section describes the purveyors' facilities and their availability to contribute to the current and future water demands of the Agency's Service Area. Current and expected supply and demand requirements for each purveyor are summarized in Table 7-1.

7.3.1 Description of Facilities

Four retail water purveyors serve the Santa Clarita Valley. They are: CLWA's SCWD, Los Angeles County Waterworks District No. 36, NCWD, and VWC. The Agency provides treated imported water from California's State Water Project (SWP) to the water purveyors for distribution.

7.3.1.1 Castaic Lake Water Agency

CLWA was formed in 1962. The Agency's contract with the DWR SWP water in 1966 was for 41,500 acre-feet of annual water entitlement. In the 1980s, the Agency purchased 12,700 acre-feet of annual SWP water entitlement from Kern County Water District and recently purchased 41,000 acre-feet from another water district, for a current total annual entitlement of 95,200 acre-feet of SWP water. The Agency wholesales this imported water to the four retail purveyors through an extensive transmission pipeline system. The water is treated at the RVWTP and ESFP. The treatment process includes upflow clarifier, deep bed media filters, ozonation, and chloramination.





**Table 7-1
 CLWA Service Area Supply and Demand (AFY)**

	2005	2010	2015	2020	2025	2030
Demand						
CLWA SCWD	30,400	35,000	39,100	43,100	47,100	51,100
LACWWD #36	1,300	1,600	1,800	2,000	2,400	2,800
NCWD	11,800	14,400	16,000	17,700	19,300	21,000
VWC	30,200	35,100	40,200	43,700	50,600	54,400
Agricultural/Private	15,600	13,950	12,300	10,650	9,000	9,000
Total Demand - Normal	89,300	100,050	109,400	117,150	128,400	138,300
10% increase in dry year	8,930	10,050	10,630	11,750	12,800	13,800
Total Demand during dry yr	98,230	110,100	120,030	128,900	141,200	152,100
Conservation	(7,370)	(9,500)	(10,700)	(11,700)	(13,100)	(14,200)
Total Adjusted Demand	90,860	100,600	109,600	117,200	128,100	137,900
Supplies						
Existing Supplies – Dry						
Wholesale		9,860	9,860	9,860	9,860	9,860
Groundwater		47,500	47,500	47,500	47,500	47,500
Banking Programs		17,000	0	0	0	0
Recycled Water		1,700	1,700	1,700	1,700	1,700
Planned Supplies						
Recycled Water		0	1,600	6,300	11,000	15,700
Transfers		11,000	11,000	11,000	11,000	11,000
Banking Programs		20,000	40,000	40,000	40,000	40,000
Total Supplies without new and restored groundwater		116,560	121,160	126,860	132,460	137,260
<i>Groundwater – Restored*</i>		<i>10,000</i>	<i>10,000</i>	<i>20,000</i>	<i>20,000</i>	<i>20,000</i>
Groundwater - New		0	0	10,000	10,000	10,000
Total Supplies with planned remediation		126,560	131,130	156,860	162,460	167,260

* These values are from the 2005 Urban Water Master Plan. Intended total restored groundwater production rates may have been modified since that time.

7.3.1.2 Newhall County Water District

The NCWD service area lies in three distinct geographical areas of the valley: NCWD-Castaic, NCWD-Pinetree, and Newhall Land & Farming. NCWD-Castaic draws from four wells located





in Castaic Valley. NCWD-Pinetree draws from four wells located in Mint Canyon. Newhall Land & Farming draws from 22 wells located either downstream of Valencia Water Reclamation Plant (WRP), Castaic Valley, or San Francisquito Canyon. Details on these wells can be found in the UWMP.

NCWD supplies water from both groundwater wells and Agency imported water. Castaic customers receive approximately 72 percent CLWA and 28 percent local groundwater, Newhall customers receive 53 percent CLWA water and 47 percent local groundwater, and Pinetree customers receive 52 percent CLWA water and 48 percent local groundwater.

7.3.1.3 The Los Angeles County Waterworks District No. 36

The Los Angeles County Waterworks District No. 36 service area encompasses approximately 7,635 acres in the Hasley Canyon area and the unincorporated community of Val Verde. The District obtains its full water supply from CLWA.

7.3.1.4 Santa Clarita Water Division

The SCWD service area includes portions of the City of Santa Clarita and unincorporated portions of Los Angeles County in the communities of Saugus, Canyon County, and Newhall. SCWD pumps from 13 groundwater wells located either in Bouquet Canyon, Mint Canyon, or upstream of the Saugus Water Reclamation Plant (WRP).

SCWD supplies water from both groundwater wells and Agency imported water. Customers received approximately 61 percent CLWA water and 39 percent local groundwater.

7.3.1.5 Valencia Water Company

The VWC service area includes portions of the City of Santa Clarita, Castaic, Saugus and Newhall in addition to Valencia and Stevenson Ranch. The service area is approximately 25 square miles. VWC pumps from 22 groundwater wells located either in Castaic Valley, San Francisquito Canyon, or around Saugus WRP.

The Company supplies water from both groundwater wells and Agency imported water. VWC customers receive approximately 54 percent CLWA water and 46 percent local groundwater.

7.3.2 Availability of Resources

It is a stated goal of the Agency and the retail water purveyors to deliver a reliable and high quality water supply for their customers, even during dry periods. As part of the UWMP, a Reliability Planning Assessment was completed, evaluating the available water supply for the next 20 years in five year increments to ensure that these goals are achieved. Table 7-1 shows the results of the single-dry year assessment. A similar assessment was also compiled for normal operation and multiple-dry years. Further details are in the UWMP.





From 2000 through 2002, southern California experienced dry conditions in all three years. Based on conservative water supply and demand assumptions over the next 25 years, it was determined that available water supply capacity was currently being used to meet water supply needs. Furthermore, given a single dry year, there would be insufficient capacity from the existing and planned local, wholesale, and banked supplies to meet the future needs of CLWA and the other purveyors. The introduction of restored groundwater supplies, including the Saugus Wells, (shown in Table 7-1 in italics) in combination with conservation of non-essential demand during certain dry years will achieve the projected water needs.

7.4 Water Quality Comparison of Alternatives

Water quality data for SCWD, the three NCWD systems, VWC, and CLWA are summarized in the following pages. An overview of data-gathering methodology is provided and physical characteristics and COPCs are described.

7.4.1 Data Gathering Methodology

Chapter 3 describes the raw water sampling program conducted to characterize the current water quality of Saugus 1 and Saugus 2. Further studies conducted by the USACE supported the data. Therefore, the information was used in this risk analysis as the average and maximum water quality in the Saugus Formation Wells involved in this permit. Each constituent identified in the raw water quality characterization of the Saugus water as well as each constituent identified in the source water assessment (Chapter 2) was included as a contaminant of interest. Complete water quality data for the Saugus Wells and the alternative sources are presented in Appendix I.

For the most part, data for the alternative sources was received directly from each agency involved in the evaluation. Following the compilation of data back-dated up to five years, a water quality specialist from each agency reviewed their average and maximum. In many cases the reported values were less than the DPH DLR, also referred to as non-detect. For the risk assessment calculations to follow herein, values indicated as non-detect or less than the DLR were assumed to be half of that value. This is consistent with USEPA standard risk assessment guidelines. For example, a reading of less than 40 mg/L was assumed to be 20 mg/L for calculation purposes. This assumption makes the values used in the calculations potentially higher than the actual concentration averages providing a conservative approach to estimating the health risk posed by the water. If the contaminant was addressed as part of the assessment, this procedure was used anywhere a “—” or “ND” is shown in the water summary table in Appendix I.

In addition, new data have become available regarding the Agency’s treated water quality. Due to the increased levels of disinfection byproducts (DBPs) being detected, such as TTHMs in 2005, CLWA discontinued disinfection with chlorine and has introduced chloramination as a means for post-treatment disinfection. The treated water quality data, more specifically the concentrations of TTHMs, collected over the past three months was used in this assessment in place of the water quality inventory (WQI) information to provide a more current evaluation of





risk for that source. Simultaneously, up-to-date information regarding all TTHM levels going into distribution from each source has been collected. The data are shown in Table 7-2.

**Table 7-2
 Total Trihalomethane Data**

		CL3	CL2BR	CLBR2	BR3	TTHMs
Location		70	0.6	60	4	80
CLWA	Average	17.1	18.2	15.7	3.2	54.2
	Max	31.2	27.0	18.8	4.6	73.5
LA District 36*	Average	13.6	16.3	17.0	3.8	50.8
	Max	30.9	30.8	18.3	5.3	81.6
Newhall county	Average	12.3	27.2	35.4	10.4	85.3
	Max	12.3	27.2	35.4	10.4	85.3
Santa Clarita	Average	10.6	14.9	14.9	2.9	43.4
	Max	29.3	31.5	18.3	4.3	81.0
Valencia	Average	17.8	18.9	16.4	3.3	56.4
	Max	54.1	36.1	20.5	5.1	106.5

* LA District 36 obtains its full water from imported Agency supply

- CL3 Chloroform
- CL2BR Bromodichloromethane
- CLBR2 Chlorodibromomethane
- BR3 Bromoform

The risk assessment was conducted using methods similar to those described in Chapter 6. Screening levels were established for each contaminant of interest identified in Chapters 2 and 3. The concentrations of these contaminants in each water source were compared to these screening levels (identified as the California or Federal MCL, SMCL, NL, or PHG). The toxicity data and screening levels for contaminants of interest and the sources of this information are presented in Table 6-2 of Chapter 6. Contaminants exceeding these screening levels were included on the list of COPCs used to compare the risks associated with each water source.

The USEPA has developed short-term drinking water health advisories (HAs) for some drinking water contaminants that have the potential to cause adverse effects following a short-term exposure. The One-Day HA is the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for up to one day of exposure, and the Ten-day HA is protective against adverse noncarcinogenic effects for up to ten days of exposure. Both the One-day HA and Ten-day HA are intended to protect a 10-kg child drinking up to 1 L of water per day. To ensure that a treatment failure during a period of maximum contaminant concentration (as a worst case scenario) would not result in acute effects, the maximum contaminant concentrations in Table 6-2 of Chapter 6 were compared to the One-day and Ten-day HA when these were available for the COPC. Comparison of HA for cadmium and PCE to maximum concentrations of these contaminants did not indicate an acute health risk, so the





remainder of this risk assessment focused on chronic exposures and chronic toxicity for these contaminants. HAs were not available for perchlorate or TCE.

7.4.2 Physical Characteristics

The physio-chemical characteristics of the water determine the aesthetic, taste, and odor characteristics that influence consumer perception of water quality as well as the stability of the water quality in the distribution system. The MCLs do represent boundaries beyond which consumption would be hazardous to health. The intended potable water supply from the Saugus Formation Wells is a hard water source that contains moderate concentrations of dissolved solids and dissolved oxygen and low concentrations of TOC.

The five groundwater sources were similar in quality to Saugus 1 and 2. Each has a TDS concentration between 400 and 700 mg/L, is moderately buffered, and has a moderate conductivity. The data are presented in Table 7-3.

**Table 7-3
 Physical Properties of Potential Additional Sources for the Santa Clarita Valley**

Parameter	Units	Saugus 1 Raw	Saugus 2 Raw	Santa Clarita	Newhall CWD Newhall	Newhall CWD Castaic	Newhall CWD Pinetree	Valencia	Castaic Lake Water Agency	Regulatory Standard
		Final Purge B	Final Purge B							
pH	--	7.4	7.5	7.44	7.58	7.67	7.85	7.6	8	6.5-8.5
Alkalinity (as CaCO ₃)	mg/L	169	176	276	180	163	295	239	93	240 ^N
Hardness (as CaCO ₃)	mg/L	346	283	421	445	294	398	396	131	--
Color	CU	<5	<5	1	1.47	ND	ND	1	ND	15
DO	mg/L	5.6	6.2	--	--	--	--	--	--	--
TDS	mg/L	569	393	691	617	499	689	757	286	1000 ^N
Conductivity	µmhos/cm	870	964	1069	895	804	1148	522	522	1600 ^S
TSS	mg/L	2	<1	--	--	--	--	--	--	--
Turbidity	NTU	0.87	1.62	0.29	0.42	ND	1	ND	0.06	5
TOC	mg/L	<0.7	<0.7	--	--	ND	--	--	2.21	--
UV-254	1/cm	0.010	0.007	1	--	--	--	--	0.034	--
AOC	µg/L	44	46	--	--	--	--	--	--	--
ORP	mV	524	N/A	--	--	--	--	--	--	--
Temperature	°C	19	19	--	--	--	--	17	--	--

ND Contaminant was sampled and not detected
 -- Data is not available for this contaminant
^N This regulatory standard is a Notification Level
^S This regulatory standard is a secondary MCL

7.4.3 Contaminants of Interest

A comprehensive yet concise list of potential hazards was developed in Chapters 2 and 3 as a basis for comparison of the potential sources as well as any contaminant that was seen to exceed its regulatory level in any alternative resource. While perchlorate was found to be the only COPC





**Table 7-4
 Concentrations for Contaminants of Interest for the
 Saugus Wells and Alternative Sources**

Name	Units	Saugus Well Raw		Santa Clarita		Newhall CWD – Newhall		Valencia Water Company		Newhall CWD – Castaic		Newhall CWD – Pinetree		Castaic Lake Water Agency		Screen Level	Type
		Max	Ave	Max	Ave	Max	Ave	Max	Ave	Max	Ave	Max	Ave	Max	Ave		
Boron	µg/L	324	306	2200	1199	--	--	1000	601	--	--	301	237	1000	600		NL Lifetime HA
Cadmium	µg/L	1	1	ND	ND	--	--	--	--	--	--	--	--	15	5		NL Ca MCL
Lead	µg/L	0.53	0.5	ND	ND	--	--	--	--	--	--	--	--	15	5		NL
Manganese	µg/L	12	11	ND	ND	--	--	30	25	--	--	ND	ND	300	100		Lifetime HA
Nickel	µg/L	10	6	ND	ND	--	--	ND	ND	--	--	ND	ND	100	100		Ca MCL
Nitrate ⁵ (as NO ₃)	mg/L	18.3	13.4	49.2	23	34.4	19	39.3	22	8.4	1	36.1	17	45	45		Ca MCL
Nitrate/Nitrite (as N)	µg/L	2000	2000	8694	4544	6661	3978	8733	4911	1897	492	5130	3068	10	10		Ca MCL ²
Perchlorate ¹	µg/L	60	50	5.90	ND	20	6	ND	ND	ND	ND	ND	ND	6	6		Ca NL
PCE	µg/L	0.5	0.5	1.0	ND	--	--	ND	ND	--	--	1.4	0.8	5	5		Ca MCL
Sulfate	Mg/L	194	150	387	153	385	216	538	246	186	141	128	109	500	500		CA SMCL
TTHM	µg/L	0.5	0.5	81.0	43.4	85.3	0	106.5	56.4	85.3	0	85.3	0	80	80		MCL
Chloroform	µg/L	0.25	0.25	29.3	10.6	12.3	12.3	54.1	17.8	12.3	12.3	12.3	12.3	70	70		Lifetime HA and Proposed MCLG Conc. at 10 ⁶ Cancer Risk Level
BDCM	µg/L	0.25	0.25	31.5	14.9	27.2	27.2	36.1	18.9	27.2	27.2	27.2	27.2	1	1		Lifetime HA and MCLG
BBCM	µg/L	0.25	0.25	18.3	14.9	35.4	35.4	20.5	16.4	35.4	35.4	35.4	35.4	60	60		Conc. at 10 ⁶ Cancer Risk Level
Bromoform	µg/L	0.25	0.25	4.3	2.9	10.4	10.4	5.1	3.3	10.4	10.4	10.4	10.4	8	8		Conc. at 10 ⁶ Cancer Risk Level
TCE	µg/L	1	0.75	ND	ND	--	--	ND	ND	--	--	--	--	5	5		Ca MCL

- When perchlorate is detected at levels above its MCL, the supplies are switched offline if not already closed from distribution.
- The federal MCL for nitrate (as N) is equivalent to the Ca MCL of 45 mg/L for nitrate (as NO₃).
- Sulfate SMCL 500 mg/L (federal vs California)
- The Lifetime HA for silver is based on cosmetic effects (argyria). The calculated HA value was 0.135 mg/L, rounded to 0.1 mg/L to develop a HA that is conservative (USEPA, 1991b, Drinking Water Health Advisory for Silver). Using 135 µg/L as a screening level still could be expected to be protective against argyria and against any adverse health effects that might occur at greater concentrations or doses.
- Although Nitrate (as NO₃) exceeds its California MCL, it will not be included in the Risk Calculations so as not to double up on quantities of potential risk. The calculations for Nitrate/Nitrite (as N) already takes the Nitrate (as NO₃) concentrations into account.
- ND indicates non-detect. When COPCs are shown as ND, a value of half the DLR is used for Risk Assessment calculations.
- "--" indicates that data for this contaminant was not available.





for the Saugus Wells, the list of contaminants of interest used to evaluate the relative risk was based on information developed in Chapters 2, 3, and 6.

Relevant data from each alternative source for each potential contaminant is presented in Table 7-4. In several cases, concentrations for the chemicals on this list were not monitored. Where monitoring data was available, every alternative source exceeded at least one contamination limit at maximum contaminant concentration, but most average concentrations remained below MCLs. With the exception of perchlorate, the Saugus well raw water has contaminant concentrations equal to or lower than the concentrations of the same contaminants in any of the other systems under consideration.

Each contaminant of interest was compared to its screening level as described earlier in this section. Contaminants seen to exceed their screening levels on at least one occasion were considered a COPC and included in the calculations of this Risk Assessment. Each COPC is highlighted in yellow on Table 7-4.

7.5 Human Health Risk Assessment – Short Term

For the Saugus Wells, DPH required an assessment of water quality during failure. This assessment recognized that treatment systems are not 100 percent failure proof and that, although it is possible for water exceeding the MCL of perchlorate to pass into the distribution system, the likelihood of this occurrence is minimized due to all the operational and control safeguards in place. A conservative estimate of a one-day a year was assumed for the “worst-worst” treatment failure scenario. Risk to human health was minimized further due to the blending of the IX treated water quality with 30 mgd of treated SWP water from CLWA’s other facilities. Table 7-5 summarizes the possible blending combinations of the Saugus Well Treatment Facility effluent.

Table 7-5
Blending Ratios for Saugus Well Treated Water Going Into Distribution

	RWTP (mgd)	ESFP (mgd)	Saugus Formation Wells (mgd)	Blending Ratio
MIN	10	0	3.2	3.1:1
	0	10	3.2	
MAX	30		3.2	9.4:1

Because the water quality of the alternative water sources is so high, only disinfection is required to meet all health goals. Disinfection kills bacteria in the water supply by adding chlorine or chlorine mixed with ammonia prior to distribution. These chemicals are added in excess such that, over time, a chlorine residual is built up in the system.





Each WTP has an alarm system similar to that intended for the Saugus Formation Wells Treatment Plant.

Upon the occurrence of a one-day system failure occurring at one of these WTP, the built-up residual would continue to disinfect the water supply until the system had been restarted such that little or no risk to human health exists, water can continue to run to distribution, and no additional treatment is required.

7.6 Human Health Risk Assessment – EPA Method

Similar to the risk assessment for the Saugus Wells, an additional assessment was completed to determine any long-term risk presented by the use of the wells in accordance with USEPA guidelines. This method has been used for previous Policy Memo 97-005 assessments. The assessment is completed in three stages: an exposure assessment, a toxicity analysis, and a characterization of risk.

7.6.1 Exposure Assessment

Exposure is defined in a human health risk assessment as the contact of a human with a chemical or physical agent. The objective of these calculations is to determine the magnitude of this exposure to the contaminants of potential concern established in Section 7.4 at the concentrations presented in Table 7-4 over a given exposure duration for ingestion. The calculations are expressed in terms of CDI for a 70-year duration and are comparable to the RfD established in the toxicity assessment below. The results of these calculations were used with the chemical-specific toxicity information presented in Chapter 6 and in Section 7.3 below to quantify, or characterize, the overall risk associated with the system.

As in Chapter 6, both the average and maximum exposure were considered to evaluate both the expected and the worst case scenarios. Unlike for the Saugus Formation wells and with the additional exception of CLWA water, the alternative water sources are untreated prior to disinfection and distribution. Therefore, while the exposure from the Saugus Formation Well sources was calculated using treated well water concentrations, the risk for each alternative source was calculated as follows:

$$CDI = \frac{CW_2 * IR * EF * ED}{BW * AT} + \frac{CW_1 * IR * (365 - EF) * ED}{BW * AT}$$

- Where CW_1 = Average Chemical Concentration in water, $\mu\text{g/L}$
 CW_2 = Average/Max Chemical Concentration in water, $\mu\text{g/L}$
 IR = Ingestion Rate, 2.0 L/day
 EF = Exposure Frequency of maximum concentration, 1 day/year
 ED = Exposure Duration, Lifetime 70 years by convention
 BW = Body Weight, 70 kg





AT = Averaging time, ED x 365 days/year

Table 7-6 shows the CDI values for each contaminant of interest in each potential water source that exceeded their screening level at any one alternative source. CDI_{ave} represents the chronic daily intake of each chemical assuming the concentration of water has minimal variations during a one year period. In this case, CW₁ and CW₂ both represent the average chemical concentration as shown in the WQI database. CDI_{max} represents the chronic daily intake of each chemical assuming the water has a maximum concentration spike lasting 1 day per occurrence with one occurrence per year. In this case, CW₂ represents the maximum concentration detected in the water source. For the purpose of this assessment and in line with the USEPA assessment guidelines, the average calculations served as the basis for the source comparison. It should be noted that, for those COPCs identified as non-detect, half the detection limit is used for calculation purposes.

**Table 7-6
 Chronic Daily Intake of Contaminants of Potential Concern**

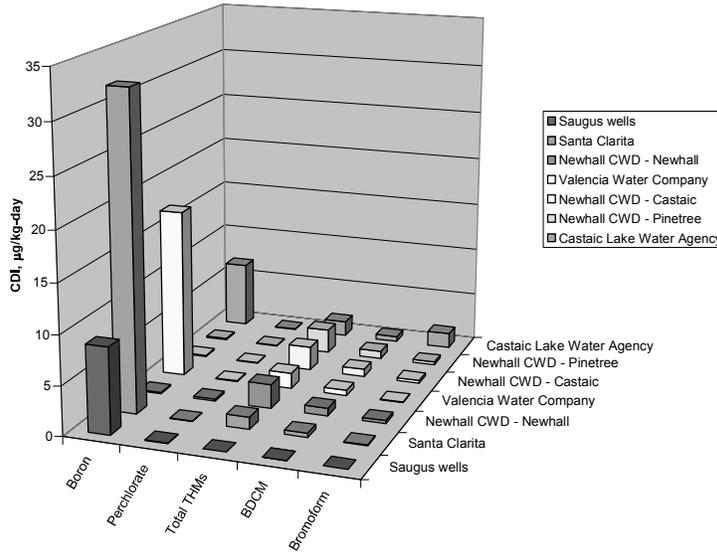
Contaminant	Saugus wells		Santa Clarita		Newhall CWD - Newhall		Valencia Water Company		Newhall CWD - Castaic		Newhall CWD - Pinetree		Castaic Lake Water Agency		Reference Dose µg / day	Notes
	CDI AVE	CDI MAX	CDI AVE	CDI MAX	CDI AVE	CDI MAX	CDI AVE	CDI MAX	CDI AVE	CDI MAX	CDI AVE	CDI MAX	CDI AVE	CDI MAX		
	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day	µg / kg-day		
Boron	8.7	8.7	32.0	32.1	0.1	0.1	17.2	17.2	0.1	0.1	0.1	0.1	0.1	6.8	200	
Nitrate/Nitrite (as N)	29	29	130	130	114	114	250	141	14	14	88	88	11	11	290	As no IRIS data or Health Advisory data is available, for the purpose of these calculations, the Reference dose for Nitrate (as NO ₃) and Nitrate/Nitrite (as N) shall be backcalculated from the Public Health Goals (PHG)
Perchlorate	0.06	0.06	0.06	0.06	0.17	0.17	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.7	
Sulfate	103	107	120	138	169	182	193	215	110	114	85	87	56	63	14200	This is an Acute Health Risk, not Chronic. The laxative effect of sulfate is acute rather than chronic. USEPA does not recommend a RfD because of limitations of available data for assessing risks. See section 5 discussion of TM6 for more details
Total THMs	0.01	0.01	1.24	1.24	2.44	2.44	1.61	1.62	2.44	2.44	2.44	2.44	1.55	1.55	N/A	
BDCM	0.01	0.01	0.43	0.43	0.78	0.78	0.54	0.54	0.78	0.78	0.78	0.78	0.52	0.52	3	Oral RfDs were available in IRIS for BDCM (0.02 mg/kg-day) and bromoform (0.02 mg/kg-day), but these RfDs were located in the latest draft of the Drinking Water Criteria Document on Brominated Trihalomethanes (USEPA, 2003c) and appear to be more up-to-date than the IRIS record
Bromoform	0.01	0.01	0.08	0.08	0.30	0.30	0.09	0.09	0.30	0.30	0.30	0.30	1.55	1.54	30	

The calculations for the Saugus Formation wells allowed for treatment failure and therefore represented a conservative estimate of the likely water quality going into supply. These calculations show that the treated well water quality would be good and would compare favorably to the quality of the other source alternatives, as shown on the graphical representation of the data (Figures 7-1 and 7-2). In both cases, the levels of most contaminants of potential concern in the Saugus Formation well water are generally lower than those in the other sources.

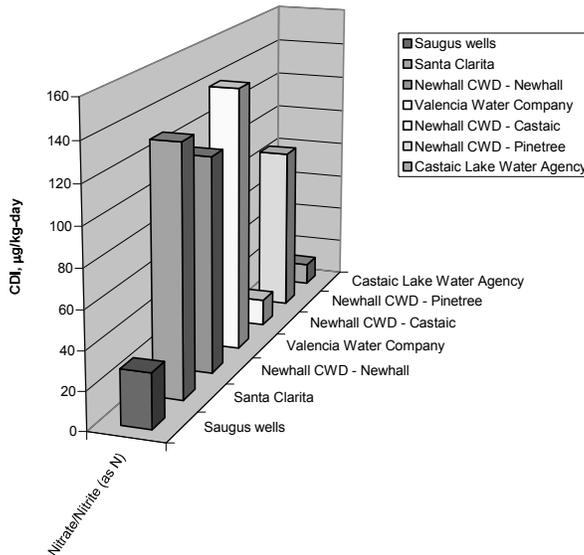




**Figure 7-1
 Maximum Chronic Daily Intake**



**Figure 7-2
 Maximum Chronic Daily Intake - Nitrates**





7.6.2 Toxicity Assessment

The toxicity assessment measures the adverse health effects that exposed individuals can experience due to consumption of contaminants of potential concern and evaluates any relationships between the extent of exposure to a contaminant and severity of the effects. Most of the contaminants of potential concern identified in Section 7.4 were reviewed in the risk assessment for the Saugus Formation wells alone. These contaminants included: boron, manganese, perchlorate, sulfate, PCE, TTHMs, and TCE. Fe was established during this review as a potential contaminant of concern from at least one of the alternative sources. All were reviewed as part of this assessment.

The USEPA *Risk Assessment Guidelines* stipulate that the toxicity assessment should be completed in two stages. The hazard assessment identifies the potential types of harm that can be caused by each contaminant (e.g., carcinogenic and non-carcinogenic effects). The information from the hazard assessment is then used to quantify the relationship between the dose of the contaminant ingested and the incidence of adverse health effects by selecting the critical health effect(s) and the corresponding NOAEL or RfD, slope factor (if applicable), and uncertainty factors.

7.6.2.1 Hazard Assessment

A hazard assessment was completed for each COPC to evaluate any adverse health effects and establish the critical health impact of each contaminant. RfDs are shown in Chapter 6 and in Table 7-6.

7.6.2.2 Dose-Response Assessment

In the dose-response assessment, the amount of chemical intake required to result in the critical human health effects identified in the hazard assessment is quantified. The dose-response relationship used to identify this value is often different for carcinogenic and non-carcinogenic chemicals. For all chronic non-cancer COPCs, this relationship is derived as an RfD value and uncertainty factor. For any carcinogens, a relationship of toxicity values and slope factors is used. For carcinogenic contaminants there is a “zero risk” policy; however, for non-carcinogens, there is threshold dose below which no adverse response would be expected, as described in Chapter 6.

7.6.3 Risk Characterization

The final step in the evaluation of risk is to integrate the information from the previous tasks to define an overall risk.

7.6.3.1 Non-carcinogenic Risk

At the present time, the USEPA does not use a probabilistic approach to estimating non-carcinogenic risk. Instead the level of exposure over a specified time period is compared to an RfD for a similar exposure period. The exposure level (as described in the *Guidelines*) is





equivalent to the CDI calculated in the exposure assessment and the non-cancer risk quotient of each contaminant is calculated as follows:

$$Quotient = \frac{E}{RfD}$$

where E = Exposure Level (or intake, CDI), ug/kg-day
 RfD = Reference Dose, ug/kg-day

The sum of these quotients is equal to the non-cancer hazard index, presented in the Table 7-7.

**Table 7-7
 Average Non-cancer Risk for All Potential Water Sources**

	Saugus wells	Santa Clarita	Newhall CWD - Newhall	Valencia Water Company	Newhall CWD - Castaic	Newhall CWD - Pinetree	Castaic Lake Water Agency	RfD
	Hazard Quotient	Hazard Quotient	Hazard Quotient	Hazard Quotient	Hazard Quotient	Hazard Quotient	Hazard Quotient	
Boron	0.0437	0.1599	0.0007	0.0859	0.0007	0.0007	0.0007	200
Nitrate/Nitrite (as N)	0.0985	0.0004	0.0270	0.0049	0.0049	0.0049	0.0049	290
Perchlorate	0.0870	0.0816	0.0408	0.0408	0.0408	0.0408	0.0816	0.7
Sulfate	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.42E+07
TOTAL	0.229	0.242	0.069	0.132	0.046	0.046	0.087	

The hazard for the worst-case scenario was also calculated using the maximum CDI values. However, the *Superfund Guidelines* stipulate that average values should be used. All results can be seen in Appendix J.

It should be noted that sulfate levels are governed by an acute HA. The hazard indices calculated above indicate the acute hazard of a ten-day intake inclusive of a one-day failure relative to the back-calculated ten-day health advisory in terms of mg/kg-day.

7.6.3.2 Carcinogenic Risk

In the case of carcinogens, the risk is calculated as the probability of an individual developing cancer over a lifetime as a result of ingestion of the carcinogen. It is calculated using the CDI values from Section 7.1 above and the slope factor, which represents the cancer risk in terms of proportion of population affected per unit dose.

In the event of increased concentrations due to environmental exposures, it generally can be assumed that the dose-response relationship will be linear in the low-dose portion of the multi-stage dose response curve. However, so as not to have to guarantee minimal risk, the one-hit equation for risk characterization was used, which is consistent with the linear low-dose model, as follows:

$$Risk = 1 - \exp(- CDI \times SF)$$





where: CDI = Maximum Chronic Daily Intake, mg/kg-day
 SF = Slope factor, (mg/kg-day)⁻¹
 Risk = A unitless probability of an individual developing cancer

The results of these calculations for each potential source are shown in Table 7-8.

Table 7-8
Average Cancer Risk for All Potential Water Sources

	Saugus wells	Santa Clarita	Newhall CWD - Newhall	Valencia Water Company	Newhall CWD - Castaic	Newhall CWD - Pinetree	Castaic Lake Water Agency	
	Risk	Risk	Risk	Risk	Risk	Risk	Risk	SF
BDCM	2.14E-08	1.28E-06	8.91E-07	1.62E-06	2.33E-06	2.33E-06	1.56E-06	0.003
Bromoform	2.14E-07	2.49E-06	2.33E-05	2.83E-06	8.91E-06	8.91E-06	4.65E-05	0.03
TOTAL	2.36E-07	3.76E-06	2.42E-05	4.46E-06	1.12E-05	1.12E-05	4.80E-05	

As stated in Chapter 6, USEPA stipulates that the carcinogenic risk to individuals generally should not exceed one in ten thousand (i.e., 1E-04) (USEPA, 1991a).

7.6.3.3 Discussion of Risk

The risk assessment was developed based on current raw water quality data from the Saugus Formation Wells that are part of this permit and all water quality data available for six other potential water sources in the area. The compilation of raw data for the alternative sources and the complete calculations for the risk assessment are shown in Appendices I and J, respectively. Overall, although the alternative sources do not exceed the majority of the maximum contaminant limits of concern, they do represent a greater total risk than that expected for the treated Saugus Well water. As shown on Figures 7-3 and 7-4, the Saugus Formation Wells represent a comparably low overall risk. The DBPs, TTHMs, have been detected at increased levels in one of the alternative sources, as shown on Figure 7-5; however, these concentrations are below the MCL.





Figure 7-3
Maximum Non-cancer Risk

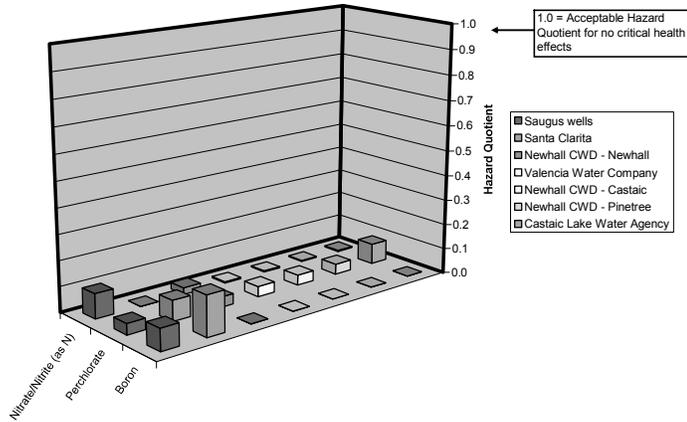
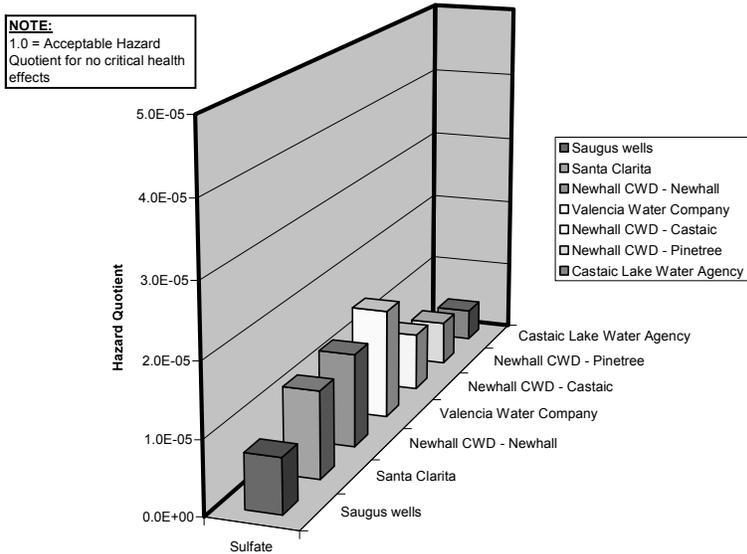
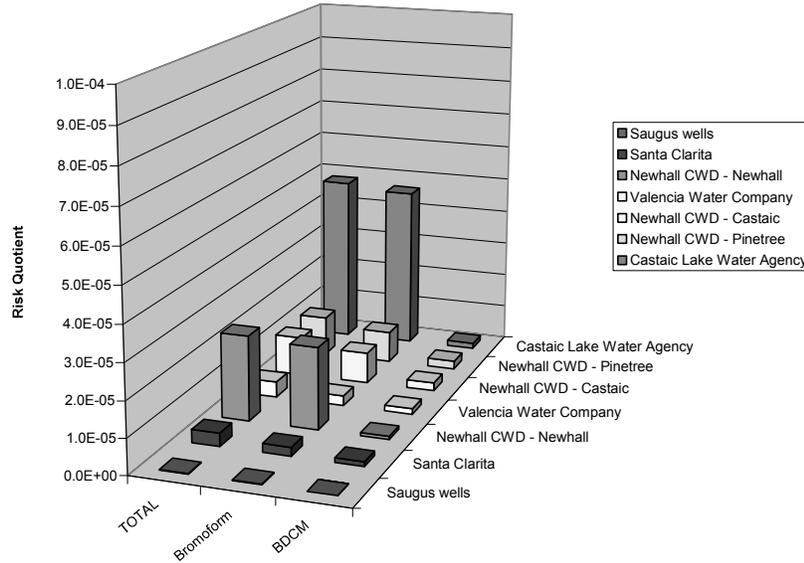


Figure 7-4
Maximum Non-cancer Risk – Sulfates





**Figure 7-5
 Total Cancer Risk**



When analyzing non-cancer health effects, there may be concern if the total hazard index exceeds 1.0. However, for multiple exposure pathways, the hazard index can exceed 1.0 if no single exposure pathway is greater than 1. More specifically, when evaluating several chemicals to which a population is simultaneously exposed, total risk should be broken down by major health effects to determine the likelihood of health effects. Table 7-9 indicates that, in addition to representing a lower risk in terms of individual contaminants, the Saugus Formation wells would minimize the risk related to each major effect of concern. Figure 7-6 shows the graphical representation. The element of non-carcinogenic risk makes Saugus 1 and 2 the best selection for a new water source.

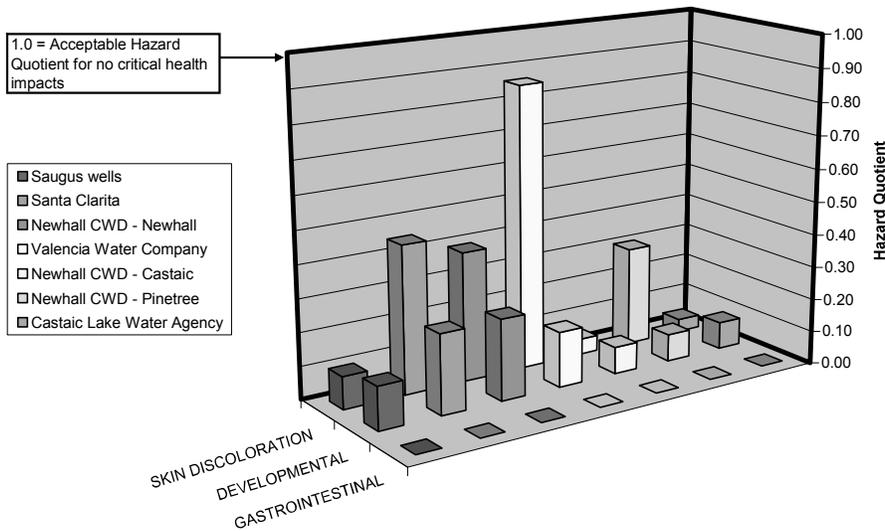




**Table 7-9
 Total Hazard Index for Major Effects**

	Saugus wells	Santa Clarita	Newhall CWD - Newhall	Valencia Water Company	Newhall CWD - Castaic	Newhall CWD - Pinetree	Castaic Lake Water Agency
Boron	0.044	0.160	0.001	0.086	0.001	0.001	0.001
Perchlorate	0.087	0.082	0.041	0.041	0.041	0.041	0.082
HAZARD INDEX FOR DEVELOPMENTAL DEFECTS	0.13	0.24	0.04	0.13	0.04	0.04	0.08
Sulfate	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
HAZARD INDEX FOR GASTROINTESTINAL DIFFICULTIES	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Nitrate/Nitrite (as N)	0.10	0.00	0.03	0.00	0.00	0.00	0.00
HAZARD INDEX FOR METHOGLOBENEMIA	0.10	0.00	0.03	0.00	0.00	0.00	0.00
TOTAL	0.23	0.24	0.07	0.13	0.05	0.05	0.09

**Figure 7-6
 Cumulative Hazard Indices for Critical Health Effect**





In terms of cancer risk, the USEPA’s approach “emphasizes the use of one chance in one million (i.e., 1E-06) as the point of departure while allowing site- or remedy-specific factors” (USEPA, 1991a). However, USEPA also suggests that risk to an individual should not exceed one in ten thousand. Table 7-10 and Figure 7-5 summarize the cancer risk for all seven potential resources. The six alternative sources have comparable cancer risks and are within a risk quota of 1×10^{-4} , similar to the Saugus Formation Wells.

**Table 7-10
 Average Cancer Risk**

Source	Cancer Risk
Saugus Well - Treated	2.36×10^{-7}
Santa Clarita Water Company	3.76×10^{-6}
Newhall CWD - Newhall	2.42×10^{-5}
Valencia Water Company	4.45×10^{-6}
Newhall CWD - Castaic	1.12×10^{-5}
Newhall CWD - Pinetree	1.12×10^{-5}
Castaic Lake Water Agency	4.80×10^{-5}

The Saugus Formation Wells appear to be a source of minimal risk, relative to the other alternatives, in terms of potential cancer risks to human health.

7.7 Disposal Alternatives

Disposal alternatives for the Saugus Well Facility are discussed in Chapter 5 as one of the ranked selection criteria for process treatment alternatives. Each treatment alternative was evaluated based on their production of waste streams that require discharge to non-reclaimable waste pipelines. For the Agency’s treatment facility, a treatment process requiring disposal of a waste stream would not be feasible due to the distance from the nearest NRW pipeline. Therefore, preference was given to technologies that would not produce a waste stream that needs to be discharged. Non-Regenerable IX received a high ranking as has no liquid discharge.

7.8 Summary

The purpose of the alternative sources evaluation was to establish the availability of other potential sources in the area and compare the potential health risks associated with these alternatives. Four other water agencies were identified as having sources in the region regardless of availability. In proceeding with the data collection, it was noted that, due to recent investigations, the information available regarding the water quality for Saugus 1 and 2 was more thorough than for several of the other sources.

A list of contaminants of interest was developed from the possible source water contaminants, and contaminant concentrations were “screened” against the California and federal MCLs.





Contaminants that exceeded these screening levels were considered to be COPCs and required further evaluation as part of the risk assessment.

It should also be noted that, as investigated in the UWMP, all alternative purveyors identified in this assessment are approaching their maximum groundwater withdrawal capacity and, therefore, may not be able to provide supplemental water to the Agency in order to meet their expected demand.

The conservative risk characterization of these water sources showed that no HI for an individual contaminant nor for any major health impact in any source exceeded one. Therefore, neither the Saugus Wells nor any of the alternative sources posed any potential threat of adverse health impacts due to public consumption. Furthermore, the assessment showed that, although most average concentrations of the contaminants of concern did not exceed their MCLs, the treated Saugus Formation Well water proved to be the water source that would exhibit the least risk when put into service for supply. With the added prospect of blending into the existing water supply, this analysis indicates that the use of this source should present no concern in terms of hazards to human health.



Letter No. D45

Letter from SCOPE, February 22, 2011

Response 1

The commenter voiced their displeasure with the selection of the EIR consultant, Impact Sciences. The commenter refers to confidentiality agreements and Impact Sciences has not signed any confidentiality agreements. The comment raises issues that do not appear to relate to any physical effect on the environment in the OVOV Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter states that other impacts are downplayed or obscured. The commenter acknowledged that while Impact Sciences does not have complete control over the draft EIR they should exercise oversight to the material presented. The commenter further to state that the document contains over 10,000 pages and that the controversy is "hidden in plain sight." The commenter does not believe that agencies should hire consultants who are working on projects for major developers. The commenter states that the consultants should be required to disclose such conflicts.

The commenter provides no examples of which impacts have been downplayed or obscured. Consequently, no further response can be provided. There were two consultants hired by the agencies for the OVOV project- Austin Foust Associates for Traffic and Greve & Associates for Noise. Both the City and the County of Los Angeles reviewed each technical report for accuracy and for inclusion in the OVOV Plan and Program EIRs.

The comment regarding controversy is hidden in plain sight only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter reiterates a portion of the Draft Program EIR describing the joint nature of the OVOV Plan. The commenter states that, in fact, the OVOV Plan is not a joint effort in that there are two separate EIRs that have been prepared, one for each jurisdiction. The City and County are, and will continue to be, separate jurisdictions with separate decision-making bodies. The County will be responsible for implementing and enforcing the updated Santa Clarita Valley Area Plan, including the mitigation measures identified in the County's EIR, within its jurisdiction. The City will be responsible for implementing and enforcing the updated General Plan, including the mitigation measures identified in the City's EIR, within its jurisdiction. Since the two jurisdictions' documents are exceedingly similar,

implementation and enforcement should be consistent across the jurisdictions. The Land Use Element of the County's Revised Draft Santa Clarita Valley Area Plan includes several implementation actions that will require the County to closely coordinate with the City to ensure consistent implementation and enforcement after the updated documents are adopted.

A portion of the comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The commenter states that the lack of concurrent hearings contributes to an onerous and time-consuming process. The commenter states that if other agencies can work concurrently so can the City of Santa Clarita and the County of Los Angeles. Please see **Response 3**, above.

Response 5

The commenter states that a dual process does not meet the objective of the plan to foster public participation. The commenter requests that the two processes be merged and held concurrently to get more of the public involved. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter states that the County has stronger governing ordinances (Green Building Standards, Drought Tolerant Landscaping rules, SEAs and the Oak Tree Ordinance) when compared to the City. The commenter stated that one set of mitigation measures may be appropriate for the County, one set may be more appropriate for the City. The comment regarding the County having a stronger set of ordinances only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

We concur with the commenter that certain mitigation measures may be appropriate for the County and different mitigation measures more appropriate for the City, as the case may be which further defines the need for two separate Plans and EIRs.

Response 7

The commenter stated that the 1991 General Plan was completed with the assistance of a General Plan Advisory Committee. The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 8

The commenter states that the involvement in this OVOV Plan was conducted 10 years ago and the scoping meeting held on August 4, 2008. The commenter contends that the City presented a finished plan at community meetings and did not receive input. The commenter stated that the comments made at the scoping meeting were not addressed. Please see Draft Program EIR Section 1.0, Table 1.0-1, Community Outreach and Public Meetings. Review of this table demonstrates that many public outreach meetings were held between 2000 and 2008. Table 1.0-2 Summary of NOP Comments. Table 1.0-3 Scoping Comments, includes all of the comments received at the Scoping Hearing and a location where the response to the comment can be found. As part of the City's public outreach for the project, City staff met with the commenters on September 11, 2010 prior to the release of the EIR.

Response 9

The commenter does not believe that the growth projections outlined in the OVOV Plan are realistic. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 10

The commenters asked how the growth projections were devised. The commenter believes that SCAG calculates a fairly accurate increase in population for Los Angeles County but where the population will grow is entirely arbitrary. Section 2.0, Project Description page 2.0-24 and 25 describe how the population projections were calculated:

ANALYSIS ASSUMPTIONS AND METHODOLOGY

Projections for Population and Households

Based on a detailed analysis of the planning area conducted by traffic analysis zones, staff from the City and County have determined that population of the Santa Clarita Valley at full buildout of the uses shown on the land use map of the General Plan will be approximately 460,000 to 485,000 residents,

comprising 150,000 to 160,000 households. The methodology used by staff to develop these detailed demographic projections involved the following steps:

1. Staff prepared projections for each traffic analysis zone (TAZ) contained in the traffic model. For purposes of traffic modeling, a TAZ is a portion of land within the planning area in which certain land uses have been designated, the development of which is expected to generate new vehicle trips to serve future development. Only undeveloped or underutilized land will be expected to be used for new development that will generate new vehicle trips. Therefore, each TAZ was analyzed to determine the percentage of land that was already fully built out, and the amount of land available for new development or rebuilding. There are 455 TAZs in the traffic model for the planning area.
2. Staff compared each TAZ with a current aerial photograph and Planning Department records to determine the amount of developable land in each one. Land was considered to be developable if it was vacant or underutilized, privately owned, designated and zoned for future development, and free of major constraints such as ridgelines and floodways.
3. For land within each TAZ, staff estimated the projected actual buildout capacity under the draft Land Use Map, considering parcelization, existing and surrounding development, access, topography, drainage patterns, infrastructure capacity, and similar site constraints.
4. Portions of the Planning Area outside of the TAZ had trips designated to the nearest TAZ.
5. The result of this analysis was an estimated buildout capacity for each TAZ in terms of dwelling unit number and type; non-residential development potential (including commercial, business park, retail, and institutional space); public uses, including government and school facilities, parks and open space; and land devoted to infrastructure (such as streets and highways, transmission corridors, and flood control easements).
6. The projections generated from the TAZ analysis represent staff's best efforts to achieve a realistic vision of actual buildout potential for the planning area. In preparing the OVOV land use projections, staff acknowledged that portions of the planning area are already largely developed, and that the General Plan is not based on a "clean slate" of vacant, undeveloped land. Existing uses and development patterns must be recognized in planning for new uses.

For purposes of a theoretical comparison, the TAZ analysis could be compared to the "worst case" buildout projections of the General Plan land use map. The worst-case scenario assumes that all existing uses are subject to demolition, reconstruction, or intensification to achieve the maximum density allowed by the land use map. For example, if an area is designated for single-family residential uses at five dwelling units per acre and the area is already developed at four dwellings per acre, the worst case scenario assumes that the existing subdivisions would be replaced with new subdivisions at a higher density, or that existing units would be subdivided into multi-family structures to achieve the higher density. Because many areas of the Santa Clarita Valley have been developed within the last 20 years with structures that have useful life spans of 50 years or longer, staff determined that it would be unreasonable to assume that all existing development would be replaced with new development at the highest possible

density allowed by the land use map. For this reason, the “worst case” scenario under the land use plan was not used as the basis for demographic projections. Instead, the TAZ analysis described above formed the basis for reasonable buildout projections of land use, dwelling units, population, and employment.”

The commenter’s statements regarding SCAG population projections only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter questions whom does a large projection benefit and who does it hurt? The commenter stated that it helps developers, engineering firms and anyone who would supply services to support a large population. The commenter further states that it hurts the taxpayer who will have to pay for the additional services and it hurts the environment by visioning beyond our carrying capacity. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 12

The commenter believes that there must be a mistake because 42,000 unbuilt units would not have been approved. The commenter also noted a disparity in overall building unit numbers when compared to the County of Los Angeles. The requested correction to Section 3.19, Population and Housing, pages 3.19-2 of the Draft Program EIR has been made. Please see the portion of the One Valley One Vision Final EIR entitled, “Revised Draft EIR Pages,” for the actual text revision.

Response 13

The commenter states that the County has policies such as CO 3.1.1 which encourage infill and transit oriented projects while the city’s plan seems to encourage the development of floodplains. The commenter is incorrect. The City too has policies that directs development to those areas with access to alternative modes of transportation: Policy C 1.2.1: Develop coordinated plans for land use, circulation, and transit to promote transit-oriented development that concentrates higher density housing, employment, and commercial areas in proximity to transit corridors.

Response 14

The City believes that many of its policies have definitive and strong language. For example, OVOV contains the following policies in addition to the policy identified by SCOPE. These policies include, but are not limited to, the following:

- Objective LU 1.1:** Maintain an urban form for the Santa Clarita Valley that preserves an open space greenbelt around the developed portions of the Valley, protects significant resources from development, and directs growth to urbanized areas served with infrastructure;

- Policy LU 1.1.5** Promote infill development and re-use of underutilized sites within and adjacent to developed urban areas to achieve maximum benefit from existing infrastructure and minimize loss of open space, through redesignation of vacant sites for higher density or mixed uses, where appropriate;

- Policy LU 5.2.1:** Designate higher-density residential uses in areas served by public transit and a full range of support services; and

- Policy C 3.3.4:** Within transit-oriented development projects, consider providing incentives such as higher floor area ratio and/or lower parking requirements for commercial development that provides transit and ride-share programs.

Note that both LU 1.1 and LU 5.2.1 include more definitive language.

Response 15

The commenter states that these policies and goals are patently absurd. Primarily because so many previously approved specific plans preclude compliance with policies. Secondly, the commenter believes that the City has shown bad faith by allowing so many General Plan Amendments in the past and by the recent Planning Commission approval of the Vista Canyon project by allowing development in a rural area, in the floodplain and in an SEA overlay. Last, some of the policies have weak language such as “encourage,” “promote” and “where appropriate.” The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. Comments regarding Vista Canyon do not address the OVOV Draft Program EIR.

Response 16

The commenter believes that the population projections must be revised downward to conform with reality and the current state of the economy. The commenter suggests that the population projections be

revised with census data and that unbuilt tracts and specific plans should be allowed to expire so that new approvals will comply with updated laws and address existing needs. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 17

The commenter urged the City to enact a Development Monitoring System (DMS) as mitigation for this General Plan update. The City has chosen not to include a development monitoring system (DMS) in its General Plan. Additionally, the County has chosen not to include a DMS program in their General Plan effort as well.

Historically, in 1987 the County of Los Angeles Department of Regional Planning (DRP) initially established DMS, which was a program to ensure that in quickly expanding areas, new development, public service infrastructure, and service capacity were closely monitored for inefficiencies. The DMS program monitored the expansion costs for schools, sewers, fire stations, libraries, and water services in urban expansion areas, and ensured that from a planning perspective, services were expanded to meet future growth projections.

The County's General Plan no longer identifies urban expansion areas, and many of the expansion costs for services are now covered by specific development fees and by CEQA. Thus the County DRP will no longer utilize DMS. Therefore, consistent with County planning the City no longer sees the need to include DMS for planning purposes.

Response 18

The comment states that the City should defer further consideration of the proposed project until the update to the 2005 UWMP is adopted. The City is aware that CLWA is currently updating the UWMP. However, until such time that CLWA and the retail purveyors complete the updated UWMP, the 2005 UWMP is indeed one of the documents that should be relied upon. Based on the extensive amount of current information presented in the Draft EIR, the City considers the water supply analysis presented in the Draft EIR to be accurate as written. Please also see Section 3.13, Water Service, which addresses the effect of various biological opinions and court decisions on water supply. (See Draft EIR, pp. 3.13-74 to 3.13-79.)

The comment also states that new disclosure requirements and water conservation goals were imposed as part of Senate Bill (SB) 7X7. This comment is generally correct. However, it is important to note that these

requirements and goals are not required as part of an EIR. They are the responsibility of water suppliers in the state. Section 3.13 provides a summary of Senate Bill (SB) 7X7:

SB 7 – Statewide Water Conservation: SB 7X-7 creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California’s water use. For the first time in California’s history, this bill requires the development of agricultural water management plans and requires urban water agencies to reduce statewide per capita water consumption 20 percent by 2020. Specifically, this bill:

1. *Establishes multiple pathways for urban water suppliers to achieve the statewide goal of a 20 percent reduction in urban water use. Specifically, urban water suppliers may:
 - (a) *Set a conservation target of 80 percent of their baseline daily per capita water use;*
 - (b) *Utilize performance standards for water use that are specific to indoor, landscape, and commercial, industrial and institutional uses;*
 - (c) *Meet the per capita water use goal for their specific hydrologic region as identified by DWR and other state agencies in the 20 percent by 2020 Water Conservation Plan; or*
 - (d) *Use an alternate method that is to be developed by DWR before December 31, 2010.**
2. *Requires urban water suppliers to set an interim urban water use target and meet that target by December 31, 2015 and meet the overall target by December 31, 2020.*
3. *Requires DWR to cooperatively work with the California Urban Water Conservation Council to establish a task force that shall identify best management practices to assist the commercial, industrial, and institutional sectors in meeting the water conservation goal.*
4. *Requires agricultural water suppliers to measure water deliveries and adopt a pricing structure for water customers based at least in part on quantity delivered, and, where technically and economically feasible, implement additional measures to improve efficiency.*
5. *Requires agricultural water suppliers to submit Agricultural Water Management Plans beginning December 31, 2012 and include in those plans information relating to the water efficiency measures they have undertaken and are planning to undertake.*
6. *Makes ineligible for state grant funding any urban or agricultural water supplier who is not in compliance with the requirements of this bill relating to water conservation and efficient water management.*
7. *Requires DWR to, in 2013, 2016, and 2021, report to the Legislature on agricultural efficient water management practices being undertaken and reported in agricultural water management plans.*
8. *Requires DWR, the State Water Resources Control Board, and other state agencies to develop a standardized water information reporting system to streamline water reporting required under the law.” (see Draft EIR, pp. 3.13-82 to 3.13-83.)*

The Draft EIR also includes additional information regarding water conservation practices as they relate to the Santa Clarita Valley and the proposed project. As indicated in Section 3.13:

In 2001, CLWA signed the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) on behalf of the CLWA service area. By signing the MOU, CLWA became a member of the California Urban Water Conservation Council (CUWCC) and pledged to implement all cost-effective Best Management Practices (BMPs) for water conservation. CLWA has estimated that conservation measures within the service area can reduce the urban demand water demand by 10 percent. The BMPs include:

- *System Water Audits, Leak Detection and Repair; Public Information Programs; School Education Programs;*
- *Wholesale Agency Programs;*
- *Conservation Pricing;*
- *Water Conservation Coordinator;*
- *Water survey programs for single-family residential and multi-family residential customers;*
- *System water audits, leak detection and repair;*
- *Metering with commodity rates for all new connections and retrofit of existing connections;*
- *Large landscape conservation programs and incentives;*
- *High-efficiency clothes washing machine financial incentive programs;*
- *Conservation programs for commercial, industrial, and institutional (CII) accounts; and*
- *Water waste prohibition.*

An additional 10 percent per capita urban demand reduction could also result from the recently approved SB 7X-7, which requires a 20 percent reduction in per capita urban demand by 2020. (see Draft EIR, pp. 3.13-108.)

While Plan impacts regarding water supply are considered less than significant within the CLWA service area and the eastern subbasin, the Draft EIR also includes many mitigation measures, formed from Plan goals and policies that focus on the water supply. Please see Draft EIR pages 3.13-146 to 3.13-152. For the area outside the CLWA service area and eastern Subbasin, even with the mitigation measures presented on Draft EIR pages 3.13-152 to 3.13-154, unavoidably significant impact would occur in that portion of the plan area. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 19

This comment presents the opinion that the State Water Project (SWP) was never meant to be a primary source of supply due to its unreliability. The comment then includes references to the prior Los Angeles County's Santa Clarita Valley Areawide Plan (1984). The comment also includes the statement which suggests that the primary purpose of State Water supply is to act as a supplemental water supply to "alleviate groundwater overdraft." It is correct that the SWP delivers water supplies to supplement local and other imported supplies of SWP Contractors. As indicated by the California Department of Water Resources (DWR),

In most cases, contractors use SWP water to supplement local or other imported supplies. Five contractors use Project water primarily for agricultural purposes (mainly southern San Joaquin Valley); the remaining 24 primarily for municipal purposes. (see DWR website at: http://www.water.ca.gov/swp/contractor_intro.cfm)

The California State Water Project is a water storage and delivery system of reservoirs, aqueducts, powerplants and pumping plants. Its main purpose is to store water and distribute it to 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California. Of the contracted water supply, 70 percent goes to urban users and 30 percent goes to agricultural users.

The Project makes deliveries to two-thirds of California's population. It is maintained and operated by the California Department of Water Resources.

The Project is also operated to improve water quality in the Delta, control Feather River flood waters, provide recreation, and enhance fish and wildlife. (see DWR website at: <http://www.water.ca.gov/swp/index.cfm>)

It is incorrect, however, that in the case of the Santa Clarita Valley and the Castaic Lake Water Agency (CLWA), one of 29 SWP Contractors, SWP water is used to alleviate groundwater overdraft. As demonstrated by the substantial amount of information presented in the Draft EIR, the groundwater basin in the Santa Clarita Valley is not in a state of overdraft. Please see **Response 21**, below for supporting information.

The commenter then states that Santa Clarita Valley residents have "in fact consumed more imported state water than local groundwater due to housing approvals that have outstripped the capacity of the local aquifers." The commenter correctly points out that the Santa Clarita Valley water purveyors now deliver more imported water than local groundwater. However, it is not correct that water demand in the Santa Clarita Valley has "outstripped the capacity of the local aquifers." For a response to the claim that demand has outstripped the capacity of the local groundwater basin, please see **Response 21**, below for information regarding groundwater overdraft.

Response 20

This comment addresses SB7X7 (November 2009) and the description of that bill as presented in the Draft EIR. As confirmed in the comment, the Draft EIR has presented a comprehensive summary of SB7X7, including the State Water Resources Control Board's (SWRCB) effort to develop flow criteria for the Delta. Specifically, the Draft EIR, at pages 3.13-86 to 3.13-92, presented a summary of SWRCB's report entitled, "*Draft Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem.*" The Draft EIR, at page 3.13-10, also included the draft report as a reference document, which was incorporated into the Draft EIR.

The comment correctly points out that, in accordance with the Delta Reform Act, the SWRCB has adopted Resolution No. 2010-0039 approving the flow criteria report. The final report identifies the new flow criteria for the Delta ecosystem that are necessary to protect public trust resources. Consistent with this resolution, the SWRCB's Executive Director has submitted the final report to the Delta Stewardship Council for its information. The final report is electronically available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/final_rpt.shtml (last visited February 22, 2011). In addition, as requested in the comment, the final report is found in **Appendix B** of the Final EIR. Lastly, SWRCB's flow criteria and conclusions from the final report, at pages 4 through 7, are summarized below:

Flow Criteria and Conclusions

The numeric criteria determinations in this report must be considered in the following context:

- *The flow criteria in this report do not consider any balancing of public trust resource protection with public interest needs for water.*
- *The State Water Board does not intend that the criteria should supersede requirements for health and safety such as the need to manage water for flood control.*
- *There is sufficient scientific information to support the need for increased flows to protect public trust resources; while there is uncertainty regarding specific numeric criteria, scientific certainty is not the standard for agency decision making.*

The State Water Board has considered the testimony presented during the Board's informational proceeding to develop flow criteria and to support the following summary conclusions. Several of these summary conclusions rely in whole or in part on conclusions and recommendations made to the State Water Board by the Delta Environmental Flows Group (DEFG) [footnote omitted] and the University of California at Davis Delta Solutions Group [footnote omitted].

1. *The effects of non-flow changes in the Delta ecosystem, such as nutrient composition, channelization, habitat, invasive species, and water quality, need to be addressed and integrated with flow measures.*

2. *Recent Delta flows are insufficient to support native Delta fishes for today's habitats. [Footnote omitted.] Flow modification is one of the immediate actions available although the links between flows and fish response are often indirect and are not fully resolved. Flow and physical habitat interact in many ways, but they are not interchangeable.*
3. *In order to preserve the attributes of a natural variable system to which native fish species are adapted, many of the criteria developed by the State Water Board are crafted as percentages of natural or unimpaired flows. These criteria include:*
 - *75% of unimpaired Delta outflow from January through June;*
 - *75% of unimpaired Sacramento River inflow from November through June; and*
 - *60% of unimpaired San Joaquin River inflow from February through June.*

It is not the State Water Board's intent that these criteria be interpreted as precise flow requirements for fish under current conditions, but rather they reflect the general timing and magnitude of flows under the narrow circumstances analyzed in this report. In comparison, historic flows over the last 18 to 22 years have been:

- *approximately 30% in drier years to almost 100% of unimpaired flows in wetter years for Delta outflows;*
 - *about 50% on average from April through June for Sacramento River inflows; and*
 - *approximately 20% in drier years to almost 50% in wetter years for San Joaquin River inflows.*
4. *Other criteria include: increased fall Delta outflow in wet and above normal years; fall pulse flows on the Sacramento and San Joaquin Rivers; and flow criteria in the Delta to help protect fish from mortality in the central and southern Delta resulting from operations of the State and federal water export facilities.*
 5. *The report also includes determinations regarding variability and the natural hydrograph, floodplain activation and other habitat improvements, water quality and contaminants, cold water pool management, and adaptive management:*
 - *Criteria should reflect the frequency, duration, timing, and rate of change of flows, and not just volumes or magnitudes. Accordingly, whenever possible, the criteria specified above are expressed as a percentage of the unimpaired hydrograph.*
 - *Inflows should generally be provided from tributaries to the Delta watershed in proportion to their contribution to unimpaired flow unless otherwise indicated.*
 - *Studies and demonstration projects for, and implementation of, floodplain restoration, improved connectivity and passage, and other habitat improvements should proceed to provide additional protection of public trust uses and potentially allow for the reduction of flows otherwise needed to protect public trust resources in the Delta.*

- *The Central Valley and San Francisco Regional Water Quality Control Boards should continue developing Total Maximum Daily Loads (TMDLs) for all listed pollutants and adopting programs to implement control actions.*
 - *The Central Valley Regional Water Quality Control Board should require additional studies and incorporate discharge limits and other controls into permits, as appropriate, for the control of nutrients and ammonia.*
 - *Temperature and water supply modeling and analyses should be conducted to identify conflicting requirements to achieve both flow and cold water temperature goals.*
 - *A strong science program and a flexible management regime are critical to improving flow criteria. The State Water Board should work with the Council, the Delta Science Program, BDCP, the Interagency Ecological Program (IEP), and others to develop the framework for adaptive management that could be relied upon for the management and regulation of Delta flows.*
 - *The numeric criteria included in this report are all criteria that are only appropriate for the current physical system and climate; as other factors change the flow needs advanced in this report will also change. As physical changes occur to the environment and our understanding of species needs improves, the long-term flow needs will also change. Actual flows should be informed by adaptive management.*
 - *Only the underlying principles for the numeric criteria and other measures are advanced as long-term criteria.*
6. *Past changes in the Delta may influence migratory cues for some fishes. These cues are further scrambled by a reverse salinity gradient in the south Delta. It is important to establish seaward gradients and create more slough networks with natural channel geometry. Achieving a variable more complex estuary requires establishing seasonal gradients in salinity and other water quality variables and diverse habitats throughout the estuary. These goals in turn encourage policies which establish internal Delta flows that create a tidally mixed upstream- downstream gradient (without cross-Delta flows) in water quality. Continued through-Delta conveyance is likely to continue the need for in-Delta flow requirements and restrictions to protect fish within the Delta.*
 7. *Restoring environmental variability in the Delta is fundamentally inconsistent with continuing to move large volumes of water through the Delta for export. The drinking and agricultural water quality requirements of through-Delta exports, and perhaps even some current in-Delta uses, are at odds with the water quality and variability needs of desirable Delta species.*
 8. *The Delta ecosystem is likely to dramatically shift within 50 years due to large scale levee collapse. Overall, these changes are likely to promote a more variable, heterogeneous estuary. This changed environment is likely to be better for desirable estuarine species; at least it is unlikely to be worse.*
 9. *Positive changes in the Delta ecosystem resulting from improved flow or flow patterns will benefit humans as well as fish and wildlife.*

10. *In order to prevent further channelization of riparian corridors and infill of wetland habitats, the Delta Stewardship Council should consider developing a plan to coordinate land use policy within the Delta between the city, county, state, and federal governments.*

Ecosystems are complex; there are many factors that affect the quality of the habitat that they provide. These factors combine in ways that can amplify the effect of the factors on aquatic resources. The habitat value of the Delta ecosystem for favorable species can be improved by habitat restoration, contaminant and nutrient reduction, changes in diversions, control of invasive species, and island flooding. Each of these non-flow factors has the potential to interact with flow to affect available aquatic habitat in Delta channels.

The State Water Board supports the most efficient use of water that can reasonably be made. The flow improvements that the State Water Board identifies in this report as being necessary to protect public trust resources illustrate the importance of addressing the negative effects of these other stressors that contribute to higher than necessary demands for water to provide resource protection. Future habitat improvements or changes in nutrients and contaminants, for example, may change the response of fishes to flow. Addressing other stressors directly will be necessary to assure protection of public trust resources and could change the demands for water to provide resource protection in the future. Uncertainty regarding the effects of habitat improvement and other stressors on flow demands for resource protection highlights the need for continued study and adaptive management to respond to changing conditions. The flow criteria identified in this report highlight the need for the BDCP to develop an integrated set of solutions, to address ecosystem flow needs, including flow and non-flow measures. Although flow modification is an action that can be implemented in a relatively short time in order to improve the survival of desirable species and protect public trust resources, public trust resource protection cannot be achieved solely through flows – habitat restoration also is needed. One cannot substitute for the other; both flow improvements and habitat restoration are essential to protecting public trust resources.

The remainder of the comment presents opinion regarding the sustainability of the pumping levels maintained by the California Department of Water Resources (DWR) and the Central Valley Project (CVP). However, it is beyond the scope of this Draft EIR to speculate about the overall sustainability of pumping levels maintained by DWR and CVP, particularly where, as here, the pumping operations and ultimate legal restrictions are not yet finalized at the state level. Nonetheless, the City of Santa Clarita appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed Plan.

Response 21

The comment suggests that the groundwater basin is in a state of overdraft. This is not correct, as the extensive amount of information presented in the Draft EIR supports the conclusion that no state of overdraft exists in the Santa Clarita Valley. The comment also states that the downstream water users, including United Water Conservation District and Ventura County, remain skeptical and concerned.

This response is based on the information presented in Section 3.13, Water Service, of the Draft EIR, relevant portions of which are summarized below. It also is based on numerous reports and studies referenced on pages 3.13-8 through 3.13-13 of the Draft EIR, and shown in date order below:

- (a) *"Memorandum of Understanding" between the Santa Clara River Valley Upper Basin Water Purveyors and United Water Conservation District, August 2001;*
- (b) *"2001 Update Report: Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems," July 2002 (Slade Report);*
- (c) *"Groundwater Management Plan - Santa Clara River Valley Groundwater Basin, East Subbasin," prepared for CLWA by Luhdorff & Scalmanini Consulting Engineers, December 2003 (GWMP);*
- (d) *"Effect of Urbanization on Aquifer Recharge in the Santa Clarita Valley," prepared by CH2MHill, February 2004 (CH2MHill Memorandum);*
- (e) *"Regional Groundwater Flow Model for the Santa Clarita Valley: Model Development and Calibration," prepared for Upper Basin Water Purveyors (CLWA, CLWA Santa Clarita Water Division, Newhall County Water District and Valencia Water Company) by CH2M HILL April 2004 (2004 Flow Model);*
- (f) *2005 Urban Water Management Plan, prepared for Castaic Lake Water Agency, CLWA Santa Clarita Water Division, Newhall County Water District, Valencia Water Company, Los Angeles County Waterworks District No. 36, prepared by Black & Veatch, Nancy Clemm, Kennedy Jenks Consultants, Jeff Lambert, Luhdorff & Scalmanini, Richard Slade and Associates, November 2005 (UWMP);*
- (g) *"Analysis of Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin," August 2005 (2005 Basin Yield Report);*
- (h) *Santa Clarita Valley Water Reports (2006, 2007, 2008 and 2009 Water Reports); and*
- (i) *2009 Basin Yield Update.*

The Draft EIR thoroughly described and assessed the existing groundwater conditions in the Santa Clarita Valley based on the above-referenced reports. Specifically, the Valley's Groundwater Management Plan is discussed on pages 3.13-27 through 3.13-28; the 2009 Basin Yield Update is described on pages 3.13-29 through 3.13-31; and, the available groundwater supplies are addressed at pages 3.13-31 through 3.13-54. The Draft EIR also analyzed impacts on groundwater supplies, levels, and recharge for the proposed project. (See Draft EIR, pp. 3.13-125 to -138.)

In fact, a substantial amount of information was presented in the Draft EIR concerning the Valley's groundwater basin, groundwater levels (based on well data), groundwater pumping volumes, and the sustainability of the Valley's groundwater resources based on the CLWA/Purveyor groundwater

operating plan, including the 2009 Santa Clarita Valley Water Report presented in Draft EIR Appendix 3.13. (Draft EIR, pp. 3.13-31 to 3.13-50.) Based on that information, the Draft EIR confirmed the findings in several reports that the Santa Clara River East Subbasin (Basin) comprised of both the Alluvium (also referred to as the Alluvial aquifer) and the Saugus Formation, is not in an overdraft condition, or projected to become overdrafted:

[G]roundwater supplies were evaluated in the 2005 UWMP, the 2005 Basin Yield Report, and the 2009 Basin Yield Update. This evaluation resulted in the following findings: (a) Both the Alluvial aquifer and the Saugus Formation are reasonable and sustainable sources of local water supplies at the yields stated in the 2005 UWMP over the next 25 years; (b) The yields are not overstated and will not deplete or “dry-up” the groundwater basin; and (c) There is no need to reduce the yields for purposes of planning, as shown in the 2005 UWMP, the 2005 Basin Yield Report, and the 2009 Basin Yield Update (see Appendix 3.13 for the 2005 UWMP, the 2005 Basin Yield Report, and the 2009 Basin Yield Update). In addition, the 2005 UWMP, 2005 Basin Yield Report, and 2009 Basin Yield Update determined that neither the Alluvial aquifer nor the Saugus Formation is in an overdraft condition, or projected to become overdrafted. As a result, none of the physical effects normally associated with an overdrafted basin (e.g., subsidence, reduction in water quality) would occur. (Draft EIR, p. 3.13-125.)

Based on the information included in the Draft EIR, it has been determined that the Valley’s groundwater supplies are both available and reliable, and that the history of groundwater levels in the Alluvium and the Saugus Formation shows no signs of water-level related overdraft (*i.e.*, no long-term trend toward decreasing water levels and storage). Consequently, pumping from the Alluvium and the Saugus Formation has been, and continues to be, sustainable, and well within the operational yield of the aquifers on a long-term average basis.

The comment’s statement that downstream water users, including United Water Conservation District and Ventura County, remain “skeptical and concerned” is a mischaracterization of the facts and represents the opinion of the commenter. No communication from either agency has been provided in response to the Draft EIR, nor has the commenter provided any specific information in support of its opinion. Furthermore, the agencies referenced in this comment have been cooperating with the Santa Clarita Valley water purveyors for a number of years to monitor the condition of the Santa Clarita Valley groundwater basin. In addition, the MOU requires monitoring of the groundwater basin to identify overdraft conditions should they occur. As indicated in the Draft EIR on pages 3.13-27 and 3.13-28.

[A] local Memorandum of Understanding (MOU) process among CLWA, the purveyors, and United Water Conservation District (UWCD) in neighboring Ventura County had produced the beginning of local groundwater management, now embodied in the GWMP. In 2001, those agencies prepared and executed the MOU (see Appendix 3.13 [MOU]). The MOU is a collaborative and integrated approach to several of the aspects of water resource management included in the GWMP. UWCD manages surface water and groundwater resources in seven groundwater basins, all located in Ventura County, downstream of the Basin. As a result of the

MOU, the cooperating agencies have undertaken the following measures: (1) Integrated their database management efforts; (2) Developed and utilized a numerical groundwater flow model for analysis of groundwater basin yield and containment of groundwater contamination; and (3) Continued to monitor and report on the status of Basin conditions, as well as on geologic and hydrologic aspects of the overall stream-aquifer system.

This comment also states that the Draft EIR does not give an accurate view of the full extent of groundwater pumping in the Basin. As an example in support, the comment refers to Draft EIR Table 3.13-3, Historical Groundwater Production by the Retail Water Purveyors, found on Draft EIR page 3.13-34, and states that this table omits the pumping by Newhall Land and Farming and other private users. The City disagrees with this comment and believes that the Draft EIR does indeed provide an accurate accounting of groundwater pumping in the Basin, including groundwater use by private groundwater users in the Basin. Contrary to what the commenter suggests, the referenced table is not intended to provide a listing of all pumping in the Basin. As its title indicates, this table is intended to provide historical groundwater production (pumping) by the *retail water purveyors*, and no other private groundwater users. Groundwater pumping characteristics of the Basin including private groundwater users are described elsewhere in the Draft EIR:

Based on a combination of historical operating experience and recent groundwater modeling analysis, the Alluvial aquifer can supply groundwater on a long-term sustainable basis in the overall range of 30,000 to 40,000 afy, with a probable reduction in dry years to a range of 30,000 to 35,000 afy. Both of those ranges include about 15,000 afy of Alluvial pumping for current agricultural water uses and an estimated pumping of up to about 500 afy by small private pumpers. The dry year reduction is a result of practical constraints in the eastern part of the Basin, where lowered groundwater levels in dry periods have the effect of reducing pumping capacities in that shallower portion of the aquifer (Draft EIR, p. 3.13-35; emphasis added.)

“Background. Total pumping from the Alluvium in 2009 was about 39,986 af, a decrease of 1,730 af from the preceding year. Total Alluvium pumping was at the upper end of the groundwater operating plan range. Of the total Alluvial pumping in 2009, about 24,396 af (61 percent) was for municipal water supply, and the balance, about 15,590 af (39 percent), was for agriculture and other smaller uses, including individual domestic uses. In a longer-term context, there has been a change in municipal/agricultural pumping distribution since SWP deliveries began in 1980, toward a higher fraction for municipal water supply (from about 50 percent to more than 65 percent of Alluvial pumpage), which reflects the general land use changes in the area. Ultimately, on a long-term average basis since the beginning of imported water deliveries from the SWP, total Alluvial pumping has been about 32,000 afy, which is at the lower end of the range of operational yield of the Alluvium. That average has been higher over the last decade, about 38,500 afy, which remains within the range of operational yield of the Alluvium. The overall historic record of Alluvial pumping is illustrated in Figure 3-2 of the 2009 Water Report (May 2010).” (Draft EIR, pp. 3.13-35 to -36; emphasis added.)

As indicated above, the Draft EIR states that the total pumping in the Basin in 2009 was 39,986 acre-feet, including 15,590 acre-feet for agriculture and other smaller uses, including individual domestic uses. (See also the 2009 Santa Clarita Valley Water Report presented in Draft EIR Appendix 3.13 for additional responsive information.) Based on this information from the main body of the Draft EIR and the many technical reports referenced in the Draft EIR and included in Draft EIR Appendix 3.13, an accurate representation of groundwater pumping in the Basin is provided. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 22

The comment refers to complaints from the local well owners' association regarding groundwater pumping estimates. However, the information presented in Section 3.13, Water Service, of the Draft EIR regarding private (local) wells is accurate. For additional responsive information, please refer to **Response 21**, above, and the latest annual Santa Clarita Valley water report (April 2009), which is found in Appendix 3.13 of the Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 23

This comment states "considerable biological evidence of overdraft in the Santa Clara River exists." The comment further states that vegetation die back indicates that overdraft exists in the groundwater basin, and that no studies exist to evaluate these alleged indicators. The comment does not provide any evidence in support of these claims. However, as analyzed in the Draft EIR (and summarized above in **Response 21**), no overdraft of the groundwater basin has occurred or would occur in the future under the Santa Clarita Valley's water purveyor's groundwater operating plan. There is no reason to believe that further study of vegetation die back would alter this conclusion. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 24

The comment states that no study of subsidence, another indication of groundwater overdraft, has been completed in the Basin. As with the vegetation die back claim addressed in **Response 23** above, the comment does not provide any evidence in support of this claim. However, as analyzed in the Draft EIR (and summarized above in **Response 21**), no overdraft of the groundwater basin has occurred or would occur in the future under the Santa Clarita Valley's water purveyor's groundwater operating plan. There is no reason to believe that further study of subsidence would alter this conclusion. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

This comment indicates that the Draft EIR should have included information regarding electrical conductivity (EC) as it relates to groundwater overdraft of the basin.

On the topic of groundwater overdraft, some have suggested that information presented in the 2009 Water Report indicates that both the Saugus Aquifer and the Alluvial Aquifer are exhibiting some increase in EC indicative of groundwater overdraft. It is important to understand that in the 2009 Water Report, EC data are used to determine if local groundwater is suitable as a source of drinking water and not to determine if the basin is in a state of overdraft; EC data are used to indicate general trends in the dissolved concentrations of naturally occurring anions and cations. As discussed in a widely used and cited textbook (Freeze, R.A. and J.A. Cherry, *Groundwater*, Prentice-Hall, Inc., 1979), EC is commonly used as a surrogate measure of the concentration of these total dissolved solids (TDS) and is nothing more than a measure of the ability of a substance (such as water) to conduct an electrical current (Freeze and Cherry, p. 139). Freeze and Cherry (on p. 84) discuss EC and the nature of dissolved anions and cations in groundwater as follows:

As a result of chemical and biochemical interactions between groundwater and the geological materials through which it flows, and to a lesser extent because of contributions from the atmosphere and surface-water bodies, groundwater contains a wide variety of dissolved inorganic chemical constituents in various concentrations. ... Groundwater can be viewed as an electrolyte solution because nearly all its major and minor dissolved constituents are present in ionic form.

Freeze and Cherry present their discussion of the use of EC in groundwater studies in a broader discussion of how EC is one parameter that can be measured in the field and provides a good indicator of water quality. EC is commonly used in the hydrogeologic profession to evaluate water quality and therefore is discussed in many references and studies that discuss groundwater quality. Another reference on this subject is a publication entitled, *Groundwater Quality and Groundwater Pollution* (2003), prepared by the University of California, Division of Agriculture and Natural Resources, which was prepared in partnership with the Natural Resources Conservation Service and discusses EC as follows:⁵

With more ions in the water, the water's electrical conductivity (EC) increases. By measuring the water's electrical conductivity, we can indirectly determine its TDS concentration. At a high TDS concentration, water becomes saline. Water with a TDS above 500 mg/l is not recommended for use as drinking water (EPA secondary drinking water guidelines). Water with a TDS above 1,500 to 2,600 mg/l (EC greater than 2.25 to 4 mmho/cm) is generally considered problematic for irrigation use on crops with low or medium salt tolerance.

Notwithstanding that, EC is used to address water quality and not the sustainability of the groundwater basin, some have suggested that EC in the Alluvium is rising, and that such a rise is indicative of basin

⁵ See Regents of the University of California, Division of Agriculture and Natural Resources, 2003. *Groundwater Quality and Groundwater Pollution*, Publication 8084. 2003.

overdraft. The evidence does not support this suggestion. The 2009 Water Report presented in Appendix 3.13 provides data indicating stable EC levels in the basin, not rising levels. (See 2009 Water Report, Section 3.5 Water Quality, and Figures III-11, 12, and 13.) Trends in groundwater levels are the primary data used to conduct evaluations of groundwater basin sustainability, and such trends were used in the creation of the extensive groundwater modeling conducted to determine if the groundwater pumping plan for the basin will negatively impact groundwater levels in the Santa Clarita Valley and downstream of the Valley. As discussed above, neither groundwater level data, groundwater modeling conducted in the Santa Clarita Valley, nor the multiple detailed studies and annual reports prepared and referenced in this EIR support the position that the local groundwater basin is in a state of overdraft.

Based on this information, neither groundwater level data, groundwater modeling conducted in the Santa Clarita Valley, nor the multiple detailed studies and annual reports prepared and referenced in this EIR support the position that the local groundwater basin is in a state of overdraft. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Regarding the claim that the Draft EIR presents no information regarding the relationship between the Alluvial Aquifer and the Saugus Formation, please see **Response 21**, above and Draft EIR Section 3.13, Water Service. This comment also opines that recharge of the Saugus Formation will be reduced by alleged overdraft of the Alluvial Aquifer. No evidence supporting this opinion was provided by the commenter. As indicated in Section 3.13 and **Response 21**, above, no evidence is known to exist indicating that overdraft has ever occurred or is presently occurring in the Basin. Nonetheless, a response to this opinion is provided below.

The Draft EIR specifically addresses the proposed project's potential impact on groundwater recharge. As provided in the Draft EIR, pages 3.13-132 and 3.13-133:

Groundwater Recharge Impacts

Within CLWA Service Area

Supplying water to the City's proposed Plan buildout would not interfere substantially with groundwater recharge, because the best available evidence shows that no adverse impacts to the recharge of the Basin have occurred due to the existing or projected use of local groundwater supplies, consistent with the CLWA/purveyor groundwater operating plan for the Basin (see Appendix 3.13 [2005 Basin Yield Report]). In addition, based on the memorandum prepared by CH2MHill (Effect of Urbanization on Aquifer Recharge in the Santa Clarita Valley, February 22, 2004; Appendix 3.13), no significant cumulative impacts would occur to the groundwater basin with respect to aquifer recharge. This is because urbanization in the Santa Clarita Valley has been accompanied by long-term stability in pumping and groundwater levels, and the addition of

imported SWP water to the valley, which together have not reduced recharge to groundwater, nor depleted the amount of groundwater in storage within the local groundwater basin. This finding is supported by the 2009 Basin Yield Update, which modeled infiltration from irrigation (from urban and agricultural lands), precipitation, and streamflows (stormwater and WRP discharges). The future operating plan for the basin has been evaluated in the 2005 UWMP, the 2005 Basin Yield Report and the 2009 Basin Yield Update, and none of the documents call for attempts to artificially recharge the basin.

Based on the information presented, no significant groundwater recharge impacts (including cumulative impacts) would result from Plan buildout within the CLWA service area and East Subbasin.

Outside CLWA Service Area

Based on related information presented above for the East Subbasin and the Acton Valley Groundwater Basin, it is expected that the portion of the Planning Area east of the East Subbasin is recharged from deep percolation of precipitation on valley floors and runoff in the Santa Clara River and its tributaries. The area could also be recharged by subsurface inflow, deep percolation of irrigation returns and returns from private subsurface sewage disposal systems. Outflow or discharge from the alluvium and terrace deposits occurs by water well extractions, subsurface outflow to the downstream East Subbasin to the west, subsurface outflow, depending on water levels, to the permeable or fractured portions of the Vasquez Formation and older crystalline or metamorphic rocks that underlie the alluvium and/or terrace deposits; and evapotranspiration in areas of phreatophytes that grow in the downstream reaches of the main river valley where rising water is known to occur. Given the rural character of land uses existing and proposed in this area under the OVOV Plan, and the relatively larger amount of open land area capable of retaining runoff infiltration characteristics, buildout of the Plan in this area would not expect to obstruct or limit groundwater recharge to an extent that significant recharge impacts (including cumulative impacts) would result.

Based on the information presented in the Draft EIR and Appendix 3.13, evidence indicates that no overdraft is occurring in the Basin; therefore, no impacts to recharge are occurring as a result of groundwater use in the Santa Clarita Valley. Based on this information and as concluded in the Draft EIR, the Plan's impact on groundwater recharge would not be significant. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 25

This comment appears to suggest that, without treated water from the Saugus Formation, the Santa Clarita Valley water purveyors would not have an adequate supply of water in the future during a single-dry year. However, without more specific information regarding the use of "polluted" water from the Saugus Formation and how that relates to the potential impacts of the proposed project, a more specific response is not possible or required. Nonetheless, Section 3.13 of the Draft EIR prepared by the

City presents information supporting the conclusion that adequate supplies, including groundwater, imported SWP and non-SWP water, and recycled water, are available to meet the needs of the proposed Plan's buildout. The Draft EIR presents an analysis of cumulative water supply vs. water demand in the Planning Area under two cumulative scenarios for projected average/normal years, single-dry years and multiple dry years (i.e., buildout within and buildout outside the CLWA service area). (See Draft EIR, pp. 3.13-116 to 3.13-124.) The Draft EIR also presents a substantial amount of information regarding the topic of perchlorate in the local groundwater. (See Draft EIR, pp. 3.13-31 to -52; 3.13-144-139 to -113.) The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 26

The comment states that the proposed Plan should include goals and policies ensuring that permeable pavement and other practices for the catchment of stormwater for recharge. The comment also includes several goals and policies from the 1991 City of Santa Clarita General Plan and the existing Los Angeles County Areawide Plan for the Santa Clarita Valley related to aquifer protection. The comment states that the OVOV plan should also include the referenced goals and policies.

The proposed plan already includes goals and policies pertaining to recharge. The goals and policies presented in OVOV are repeated in the Draft EIR, and then the Draft EIR presents an evaluation of the effectiveness of said goals and policies (see Draft EIR pages 3.13-133 to -138). As indicated in the Draft EIR and as summarized in **Response 24**, above, no significant recharge impacts would be created as a result of Plan buildout. In the effectiveness evaluation, the Draft EIR states,

Effectiveness of Proposed General Plan Goals, Objectives, and Policies

The above General Plan goals, objectives, and policies promote groundwater recharge in the Planning Area. Examples of measure that can be taken to enhance groundwater recharge related policies include: promoting the use of permeable paving materials to allow infiltration of surface water into the water table (Policy LU 7.3.1), maintaining stormwater runoff on site by directing drainage into rain gardens, natural landscaped swales, rain barrels, permeable areas, and use of drainage areas as design elements (Policy LU 7.3.2), and seeking methods to decrease impermeable site area in order to reduce stormwater runoff and increase groundwater infiltration, including use of shared parking and other means as appropriate (Policy LU 7.3.3). Other design-related policies include: where detention and retention basins or ponds are required, seek methods to integrate these areas into the landscaping design of the site as amenity areas, such as a network of small ephemeral swales treated with attractive planting (Policy CO 4.3.5) and discouraging the use of mounded turf and lawn areas which drain onto adjacent sidewalks and parking lots, replacing these areas with landscape designs that retain runoff and allow infiltration (Policy CO 4.3.6).

These policies in conjunction with oversight by the Santa Clarita Valley water purveyors for controlled pumping of groundwater in the East Subbasin and by the County outside the Subbasin would ensure that impacts relating to groundwater recharge are less than significant. (see, Draft EIR pages 3.13-137 to -138)

CON/OS Goal 4 contains several objectives and policies that identify the preservation of groundwater. These include, but are not limited to, the following:

Goal CO 4: And adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems;

Policy CO 4.2.4: Identify and protect areas with substantial potential for groundwater recharge, and promote recharge of groundwater basins throughout the watershed; and

Objective CO 4.3: Limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and managing stormwater runoff at the source.

Again, note the definitive language included in Goal CO 4 and Objective CO 4.3. Also, note that Policy CO 4.2.4 *requires* the identification of areas with substantial potential for groundwater recharge.

Although OVOV does not have precisely the same language in some cases as SCOPE identifies, there are goals, objectives, and policies that are essentially the same. They are detailed as follows:

Water Supply

1.1 Develop and use groundwater sources to their safe yield limits, but not to the extent that degradation of the groundwater basins occurs.

1.2 Use of imported water to relieve overdrafted groundwater basins and maintain their safe yield for domestic uses outside of urban areas.

Goal CO 4: *And adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems;*

Policy CO 4.2: *Work with water providers and other agencies to identify and implement programs to increase water supplies to meet the needs of the of future growth;*

Policy CO 4.2.4: *Identify and protect areas with substantial potential for groundwater recharge, and promote recharge of groundwater basins throughout the watershed; and*

Policy CO 4.2.6: *Require that all new development proposals demonstrate a sufficient and sustainable water supply prior to approval.*

Note the definitive language, particularly in Policy 4.2.6.

Flood Control Drainage

3.1 Use floodways for recreation where feasible. Floodway recreational uses should be limited to those not requiring structures or improvements that could obstruct the natural flow of floodwater.

Policy CO 9.1.7: Establish appropriate segments of the Santa Clara River as a recreational focal point, encouraging a beneficial mix of passive and active recreational uses with natural ecosystems by providing buffers for sensitive habitats; and

Policy CO 9.2.7: Explore joint use opportunities to combine trail systems with utility easements, flood control facilities, open spaces or other uses where available.

Although Policy 9.2.7 includes the language “where available,” this is appropriate because these types of opportunities may not exist in all areas.

Environmental Resources Management Element

Natural Resources

1.4 Protect the viability of surface water, since it provides a habitat for fish and other water-related organisms, as well as being an important environmental component for land based plants and animals.

Policy CO 3.2.1: Protect wetlands from development impacts, with the goal of achieving no net loss (or functional reduction) of jurisdictional wetlands within the planning area.

Managed Resource Production

3.1 Maintain, where feasible, aquifer recharge zones to assure water quality and quantity.

Goal CO 4: And adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems;

Policy CO 4.2: Work with water providers and other agencies to identify and implement programs to increase water supplies to meet the needs of the of future growth;

Policy CO 4.2.4: Identify and protect areas with substantial potential for groundwater recharge, and promote recharge of groundwater basins throughout the watershed; and

Policy CO 4.2.6: Require that all new development proposals demonstrate a sufficient and sustainable water supply prior to approval.

Again, no significant impacts relating to groundwater recharge are expected with Plan buildout. Because the comment does not address the water supply analysis presented in the Draft EIR, no further response

is required. The City appreciates your comments and suggestions and they will be made available to the decision makers prior to a final decision on the proposed Plan.

Response 27

The comment states that the Draft EIR does not analyze the loss of groundwater recharge attributable to fill and compaction of the floodplain, and contends that the applicant promotes the “absurd hypothesis” that urban development and hardscaping increases groundwater recharge. This comment is incorrect. Please see **Response 26**, above for responsive information including the factual basis for the conclusion reached in the Draft EIR regarding the proposed Plan’s impact on groundwater recharge. The commenter again states that the proposed Plan should include goals and policies indicated in its comment no. 26. While no significant impacts relating to water supplies within the CLWA service area are expected, the comment and suggestions for the Plan will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Plan.

Response 28

The comment indicates the commenter’s support of strong goals and policies for water conservation and efficiency. The commenter again states that the four policies listed in its comment no. 26 must be included in the Plan. As noted in the Draft EIR impact analysis, many goals and policies are included in the Plan that focus on water conservation and the efficient use of water. The Draft EIR also includes an analysis of water supplies impacts potentially caused by constraints such as habitat and species restoration in the Delta and climate change (see, Draft EIR pages 3.13-31, 3.13-53 and 3.13-54, 3.13-69 to 3.13-75). As indicated, even with such constraints on regional supplies, an adequate supply of water exists to meet the long-term needs of the OVOV plan within the CLWA service area and eastern Subbasin. Because the comment does not address the water supply analysis presented in the Draft EIR, no further response is required. The City appreciates your comments and suggestions and they will be made available to the decision makers prior to a final decision on the proposed Plan.

Response 29

The comment states that the County Sanitation Districts have failed to meet the Santa Clara River chloride total maximum daily load (TMDL) standard of 100 mg/L, mainly as a result of the increase in use of State Water Project (SWP) water. The comment then states that the “problem” may be further aggravated by high levels of chlorides found in “certain areas of the Santa Clarita Valley use to supply future development.” However, the comment does not indicate which “areas of the Santa Clarita Valley” are being referred to. As this comment presents the opinion of the commenter and does not raise any specific issue regarding the adequacy of the analysis presented in the Draft EIR, no further response is

required or can be provided. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

The comment also states that “overdrafting of the groundwater aquifers to supply the proposed Plan development will also result in a reduction in water quality.” This comment represents the opinion of the commenter. No evidence is known substantiating the claim that the groundwater basin is in a state of overdraft. Consequently, the claim that water quality will be affected by overdraft is unsupported. For additional information regarding the topic of groundwater overdraft in the Santa Clarita Valley, please see Responses 23 and 24 above. This comment presents the opinion of the commenter and does not raise any specific issue regarding the adequacy of the analysis presented in the Draft EIR. Hence, no further response is required or can be provided. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Lastly, the comment states, “there is extensive evidence that the chloride levels in the effluent of the treatment plant will be substantially increased by approval of this Plan.” The City respectfully disagrees with this statement. In fact, no evidence is presented in this comment supporting the opinion that approval of the City’s Plan will substantially increase chloride levels in effluent from the treatment plant. This comment presents the opinion of the commenter and does not raise any specific issue regarding the adequacy of the analysis presented in the Draft EIR. Hence, no further response is required or can be provided. The City appreciates your comments and they will be made available to the decision makers prior to a final decision on the proposed project.

Notwithstanding the lack of specific comments on the adequacy of the Draft EIR, it is important to note that chloride levels in the Santa Clara River and in nearby groundwater basins for the Upper Santa Clara River watershed have been the subject of a long-term regional review effort as part of the adoption of Chloride TMDLs. This regional effort culminated in the RWQCB’s adoption of a revised Chloride TMDL as an amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan). The following is presented in order to provide the reader and decision makers with additional information on this topic.

The Chloride TMDL is described in the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) staff report, dated November 24, 2008, RWQCB Resolution, Basin Plan Amendments, and other pertinent documents, which are available on the RWQCB’s website, located at http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_69_2008-012_td.shtml (last accessed March 15, 2011), and incorporated by reference.

These regional efforts, which are consistent with the Chloride TMDL, have focused on the completion of studies to address chloride impairment in the Santa Clara River and nearby groundwater basins in the Upper Santa Clara River watershed. The studies led to a stakeholder-developed plan for complying with the Chloride TMDL. The stakeholder plan, called the "Alternative Water Resources Management Plan" (AWRM), considers the results of key TMDL studies on the chloride sensitivity of crops and aquatic life and the interaction of groundwater and surface water in the Upper Santa Clara River to fashion a plan that provides: (a) reductions in chloride loads from current levels; (b) enhancement of water supplies for recycling and downstream uses; (c) restoration of groundwater basins underlying the Upper Santa Clara River; and (d) consideration of critical conditions such as a sustained drought.

In connection with this regional effort, the RWQCB acted as the lead agency for evaluating the environmental effects of the reconsideration of the Chloride TMDL, adoption of conditional site-specific objectives (SSOs) for chloride in river reaches and groundwater basins in the Upper Santa Clara River watershed, and other interim wasteload allocations (sulfate and total dissolved solids). The result of this effort led to RWQCB's completion and approval of the "Substitute Environmental Document for the Upper Santa Clara River Chloride TMDL Reconsideration and Conditional Site Specific Objectives," which was prepared under the CEQA requirements for a certified regulatory program. RWQCB's environmental documentation was based on the revised Chloride TMDL that was considered and approved by the RWQCB and that is implemented through an amendment to the Basin Plan. This environmental documentation is available on RWQCB's website, found at http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_69_2008-012_td.shtml (last accessed March 15, 2011), and incorporated by reference.

Environmental Conditions

High levels of chloride in Santa Clara River Reaches 3, 5 and 6 have caused listings for impairment under section 303(d) of the federal Clean Water Act. Irrigation of salt sensitive crops such as avocados and strawberries with water containing elevated levels of chloride potentially results in reduced crop yields. Chloride TMDLs have been developed and adopted into the Basin Plan.

Regulatory Background and History

Chloride TMDL and AWRM

The RWQCB first adopted a TMDL for chloride in the Upper Santa Clara River (USCR) in October 2002 (Resolution No. 2002-018). On May 6, 2004, the RWQCB amended the Upper Santa Clara River Chloride TMDL to revise the interim wasteload allocations (WLAs) and implementation schedule (Resolution

04-004). The amended TMDL was approved by the State Water Resources Control Board (SWRCB), Office of Administrative Law, and the USEPA, and became effective on May 4, 2005.

At the time the TMDL was adopted and approved, there were key scientific uncertainties regarding the sensitivity of crops to chloride and the complex interactions between surface water and groundwater in the Upper Santa Clara River watershed. The TMDL recognized the possibility of revised chloride water quality objectives (WQO) and included mandatory reconsiderations by the RWQCB to consider Site Specific Objectives (SSO). The TMDL required the County Sanitation Districts to implement special studies and actions to reduce chloride loadings from the Saugus and Valencia WRPs. The TMDL included the following special studies to be considered by the RWQCB:

- Literature Review and Evaluation (LRE) - review agronomic literature to determine a chloride threshold for salt sensitive crops.
- Extended Study Alternatives (ESA) - identify agricultural studies, including schedules and costs, to refine the chloride threshold.
- Endangered Species Protection (ESP) - review available literature to determine chloride sensitivities of endangered species in the Upper Santa Clara River.
- Groundwater and Surface Water Interaction Study (GSWI) - determine chloride transport and fate from surface waters to groundwater basins underlying the Upper Santa Clara River.
- Conceptual Compliance Measures - identify potential chloride control measures and costs based on different hypothetical WQO and final WLA scenarios.
- Site Specific Objectives and Antidegradation Analysis - consider a site-specific objective for chloride based on the results of the agricultural chloride threshold study and the GSWI.

The TMDL special studies were conducted in a facilitated process in which stakeholders participated in scoping and reviewing the studies. This process resulted in an alternative TMDL implementation plan that addresses chloride impairment of surface waters and degradation of groundwater. The alternative plan, the AWRM, was first set forth by the Upper Basin water purveyors and United Water Conservation District (UWCD), the management agency for groundwater resources in the Ventura County portions of the Upper Santa Clara River watershed. The AWRM program increases chloride WQOs in certain groundwater basins and reaches of the USCR watershed, decreases the chloride objectives in the eastern Piru Basin, and results in an overall reduction in chloride loading as well as water supply benefits.⁶

⁶ Los Angeles Regional Water Quality Control Board (LARWQCB), 2008. Upper Santa Clara River Chloride TMDL Reconsideration, Conditional Site Specific Objectives for Chloride, and Interim Wasteload Allocations for Sulfate and Total Dissolved Solids Staff Report. November 24, 2008.

The AWRM program, which is described in detail in the GSWI Task 2B-2 Report,⁷ consists of advanced treatment for a portion of the recycled water from the Valencia WRP; construction of a well field in the eastern Piru basin to pump out higher chloride groundwater; discharging the blended pumped groundwater and advanced treated recycled water to Reach 4A at the western end of the Piru basin at a chloride concentration not to exceed 95 mg/L; and conveyance of supplemental water and advanced treated recycled water to the Santa Clara River.

A GSWI model was developed to assess the linkage between chloride sources and in-stream water quality, and to quantify the assimilative capacity of Santa Clara River Reaches 4A, 4B, 5, and 6 and the groundwater basins underlying those reaches.⁸ GSWI was then used to predict the effects of WRP discharges on chloride loading to surface water and groundwater under a variety of future hydrology, land use, and water use assumptions, including future discharges from the Newhall Ranch Specific Plan projects, in order to determine appropriate WLAs and load allocations. The GSWI model was used to assess the ability of the AWRM to achieve compliance with proposed conditional SSOs under future water use scenarios within the USCR watershed. The model was based on design capacities at Valencia WRP and Saugus WRP of 27.6 million gallons per day (mgd) and 6.5 mgd, for a total system design capacity of 34.1 mgd by year 2027.⁹ The model predicted that the AWRM could achieve proposed conditional SSOs for chloride under both drought and nondrought conditions.¹⁰

The watershed chloride reduction plan will be implemented through NPDES permits for the Valencia WRP and a new NPDES permit for the discharge of blended pumped groundwater and advanced treated recycled water into Reach 4A. The staff report referenced in the response, RWQCB 2008, is found in **Appendix C** of the One Valley One Vision Final EIR (see "Upper Santa Clara River Chloride TMDL Reconsideration and Conditional Site Specific Objectives for Chloride and Interim Wasteload Allocations for Sulfate and Total Dissolved Solids Staff Report," California Regional Water Quality Control Board - Los Angeles Region, November 24, 2008).

Basin Plan Objective and Interim SSO

Revised Chloride TMDL Resolution No R4-2008-012, which was approved by the RWQCB on December 11, 2008, established numeric targets that are equivalent to conditional SSOs. The conditional SSOs are based on the technical studies regarding chloride levels, which protect salt sensitive crops and

⁷ Geomatrix, 2008. Draft Task 2b-2 Report – Assessment of Alternatives for Compliance Options Using the Groundwater/Surface Water Interaction Model Upper Santa Clara River Chloride TMDL Collaborative Process.

⁸ See footnote 1.

⁹ See footnote 1.

¹⁰ See footnote 2.

endangered and threatened species, chloride source identification, and the magnitude of assimilative capacity in the upper reaches of the Santa Clara River and underlying groundwater basin. The conditional chloride SSO of 150 mg/L (based on a 12-month rolling average) supersedes the previous water quality objective of 100 mg/L for Santa Clara River Reaches 5 and 6. This SSO is conditional in that it applies only when chloride load reductions and/or chloride export projects are in operation by the County Sanitation Districts. The County Sanitation Districts have had a salt reduction program in place for several years, in particular a self-regenerating water softeners (SRWS) removal and rebate program that has resulted in the reduction of chloride loading. If the conditions of the SSO are not met, WLAs shall be based on the existing Basin Plan water quality objectives for chloride of 100 mg/L.

The following language has been added to Chapter 3, Water Quality Objectives, of the Basin Plan, under “Mineral Quality” after Table 3-8:

Table 3-8a. Conditional Site Specific Objectives for Santa Clara River Surface Waters

WATERSHED/STREAM REACH Santa Clara River Watershed	Chloride (mg/L)
Between Bouquet Canyon Road Bridge and West Pier Highway 99	150 (12-month average)
Between West Pier Highway 99 and Blue Cut gaging station	150 (12-month average)
Between Blue Cut gaging station and confluence of Piru Creek	117/130 ^a (3-month average) ^b

- a. The conditional site specific objective of 130 mg/L applies only if the following conditions and implementation requirements are met:
1. Water supply chloride concentrations measured in Castaic Lake are 80 mg/L.
 2. The Santa Clarita Valley Sanitation District (SCVSD) shall provide supplemental water to salt-sensitive agricultural uses that are irrigated with surface water during periods when Reach 4B (between Blue Cut gaging station and confluence of Piru Creek) surface water exceeds 117 mg/L.
 3. By May 4, 2020, the 10-year cumulative net chloride loading above 117 mg/L (CNCl117)ⁱ to Reach 4B of the Santa Clara River (SCR), calculated annually, from the SCVSD Water Reclamation Plants (WRPs) shall be zero or less.

$$^i \text{CNCl117} = \text{Cl}_{(\text{Above } 117)} - \text{Cl}_{(\text{Below } 117)} - \text{Cl}_{(\text{Export EWS})}$$

Where:

$$\text{Cl}_{(\text{Above } 117)} = [\text{WRP Cl Load}^1 / \text{Reach 4B Cl Load}^2] * [\text{Reach 4B Cl Load}_{>117}^3]$$

$$\text{Cl}_{(\text{Below } 117)} = [\text{WRP Cl Load}^1 / \text{Reach 4B Cl Load}^2] * [\text{Reach 4B Cl Load}_{\leq 117}^4]$$

$$\text{Cl}_{(\text{Export EWS})} = \text{Cl Load Removed by Extraction Wells}$$

- 1 WRP Cl Load is determined as the monthly average chloride (Cl) concentration multiplied by the monthly average flow measured at the Valencia WRP.
 - 2 Reach 4B Cl Load is determined as the monthly average Cl concentration at SCVSD Receiving Water Station RF multiplied by the monthly average flow measured at USGS Gauging Station 11109000 (Las Brisas Bridge).
 - 3 Reach 4B Cl Load_{>117} means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is above 117 mg/L.
 - 4 Reach 4B Cl Load_{≤117} means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is below or equal to 117 mg/L.
4. The chief engineer of the SCVSD signs under penalty of perjury and submits to the Regional Board a letter documenting the fulfillment of conditions 1, 2, and 3.
- b. The averaging period for the critical condition SSO of 130 mg/L may be reconsidered based on results of chloride trend monitoring after the alternative water resources management (AWRM) system is applied.

The conditional site specific objectives for chloride in the surface water between Bouquet Canyon Road bridge and West Pier Highway 99, between West Pier Highway 99 and Blue Cut gaging station, and between Blue Cut gaging station and confluence of Piru Creek shall apply and supersede the existing water quality objectives in Table 3-8 only when chloride load reductions and/or chloride export projects are in operation by the Santa Clarita Valley Sanitation District according to the implementation section in Table 7-6.1 of Chapter 7 of the Basin Plan. The following table has been added to the Basin Plan after Table 3-10.

Table 3-10a. Conditional Site Specific Objectives for Selected Constituents in Regional Groundwaters

DWR Basin No.	BASIN	Chloride (mg/L)
4-4	Ventura Central ^d Lower area east of Piru Creek ¹	150 (rolling 12-month average)
4-4.07	Eastern Santa Clara Santa Clara – Bouquet & San Francisquito Canyons Castaic Valley	150 (rolling 12-month average) 150 (rolling 12-month average)

¹ This objective only applies to the San Pedro formation. Existing objective of 200 mg/L applies to shallow alluvium layer above San Pedro formation.

The conditional site specific objectives for chloride in the groundwater in Santa Clara Bouquet and San Francisquito Canyons, Castaic Valley, and the lower area east of Piru Creek (San Pedro Formation) apply and supersede the existing regional groundwater quality objectives only when chloride load reductions and/or chloride export projects are in operation by the Santa Clarita Valley Sanitation District according to the implementation section in Table 7-6.1 of Chapter 7 of the Basin Plan.

Valencia WRP NPDES Conditions and Operating Criteria

The County Sanitation Districts are currently discharging wastewater from the Valencia WRP pursuant to Order No. R4-2009-0074 and NPDES Permit No. CA0054216.¹¹ The Valencia WRP treatment system consists of comminution, screening, grit removal, primary sedimentation, flow equalization, activated sludge aeration with nitrogen removal, secondary sedimentation, dual-media pressure filtration,

¹¹ Los Angeles Regional Water Quality Control Board, 2009. Order No. R4-2009-0074 (NPDES No. CA0054216), Waste Discharge Requirements for the Santa Clarita Valley Sanitation District of Los Angeles County, Valencia Water Reclamation Plant Discharge to Santa Clara River.

chlorination, and dechlorination (sodium bisulfite). The Valencia WRP has a current design capacity of 21.6 mgd and serves an estimated population of 162,661.¹²

The Valencia WRP is part of the Santa Clarita Valley Sanitation District's regional system, known as the Santa Clarita Valley Joint Sewerage System, which also includes the Saugus Water Reclamation Plant (Saugus WRP). The regional system allows biosolids, solids, and excess influent flows from the Saugus WRP to be diverted to the Valencia WRP for treatment and disposal. The Valencia WRP currently receives wastewater from the City of Santa Clarita and unincorporated areas of Los Angeles County. The wastewater is a mixture of domestic and industrial wastewater that is pre-treated.

The Valencia WRP's treatment system has recently been upgraded with respect to nitrogen removal, in order to comply with the Nutrient TMDL for Santa Clara River Watershed. In addition, the plant's phased design capacity expansion, from 17 mgd to 21.6 mgd, was completed in May 2005. As part of its effort to comply with the Chloride TMDL, the Santa Clarita Valley Sanitation District is considering conversion to ultraviolet (UV) disinfecting technology, in order to help achieve compliance with the TMDL by avoiding the addition of chloride; a design schedule has not yet been established.¹³

Consistent with the Santa Clara River Watershed Chloride TMDL, the chloride interim limit in the Valencia WRP NPDES Permit is equal to the sum of the State Water Project treated water supply chloride concentration plus 134 mg/L, expressed as a 12-month rolling average, not to exceed a daily maximum of 230 mg/L. The interim period extends between July 24, 2009 and May 10, 2014¹⁴ (the permit expiration date). Compliance with the interim limit is measured at Monitoring Location EFF-001¹⁵ and EFF-002.¹⁶ This interim effluent limitation applies in lieu of the final effluent limitation until the final effluent limitation becomes operative.

¹² Los Angeles Regional Water Quality Control Board, 2009. Fact Sheet for Order No. R4-2009-0074 (NPDES No. CA0054216), Waste Discharge Requirements for the Santa Clarita Valley Sanitation District of Los Angeles County, Valencia Water Reclamation Plant Discharge to Santa Clara River.

¹³ See footnote 7.

¹⁴ Should the NPDES permit be administratively extended beyond the May 10, 2014 expiration date, then the chloride compliance date will also be administratively extended, but not beyond the compliance date established in the Upper Santa Clara River Chloride TMDL.

¹⁵ The effluent sampling station shall be located downstream of any in plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. Under normal conditions, treated effluent is discharged through Discharge Point 001. Latitude 34°25' 49.6" and Longitude - 118°35'33.37"

¹⁶ The effluent sampling station shall be located downstream of any in plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. Under normal conditions, treated effluent is discharged through Discharge Point 002. Latitude 34°25' 48.27" and Longitude - 118°35'31.95"

The Revised Chloride TMDL Resolution No R4-2008-012, which was approved by the RWQCB on December 11, 2008, provides a 10-year schedule to attain compliance with the SSOs for chloride. The SSOs are conditioned on full and ongoing implementation of the AWRM program. If the AWRM system is not built and operated, the water quality objectives for chloride revert back to the current levels in the Basin Plan, which are 100 mg/L. Implementation actions to achieve SSOs in Reaches 4B, 5, and 6 and the TMDL must also result in compliance with downstream water quality objectives for chloride. Interim WLAs for chloride shall remain in effect for no more than 10 years after the effective date of the TMDL. However, the final conditional Waste Load Allocations for chloride in Reaches 4B, 5, and 6 shall apply by May 5, 2015. Resolution No. R4-2008-012 is awaiting approval from the State Water Board, OAL, and USEPA.

IV. Existing Chloride Concentration at Valencia WRP

The County Sanitation Districts completed a detailed and comprehensive study of the sources of chloride loading in the Santa Clarita Valley.¹⁷ Subsequently, the RWQCB and County Sanitation Districts staff analyzed chloride sources in the Upper Santa Clara River watershed.¹⁸ These analyses utilized mass balance techniques to identify and quantify chloride loads from imported water and residential, commercial, industrial, and WRP sources.

These reports found that the chloride in Valencia WRP effluent is comprised of two main sources: chloride present in the potable water supply and chloride added by residents, businesses, and institutions in the Valencia WRP service area. Potable water in the Santa Clarita Valley is derived from two sources: imported water delivered under the State Water Project and local groundwater. The chloride concentration in these two sources varies depending on a number of factors, most notably rainfall patterns. The chloride concentrations of Santa Clarita Valley water supplies that include State Water Project water are variable and, during times of extended dry weather or drought, exceed the 100 mg/L Basin Plan objective for the Santa Clara River.

The chloride load added by users can be further divided into two parts: brine discharge from SRWS and all other loads added by users. Excluding the imported and local groundwater chloride loads that exist in the Santa Clarita Valley water supply, non-SRWS sources of chloride include: residential, commercial, industrial, infiltration, and wastewater disinfection. The two largest sources of chloride in the WRP

¹⁷ Sanitation Districts of Los Angeles County, *Santa Clarita Valley Joint Sewerage System Chloride Source Report*, October 2002. The year 2001 was used as a basis for the study.

¹⁸ Los Angeles Regional Water Quality Control Board (LARWQB), 2008. Upper Santa Clara River Chloride TMDL Reconsideration, Conditional Site Specific Objectives for Chloride, and Interim Wasteload Allocations for Sulfate and Total Dissolved Solids Staff Report. November 24, 2008.

effluent are the water supply and SRWS, which have historically comprised from 37 percent to 45 percent and from 26 percent to 33 percent of the chloride in the WRP effluent, respectively. Based on the County Sanitation District's 2002 chloride source study, once this water is delivered to homes and businesses for interior use, the use of SRWS adds an additional 78 mg/L of chloride concentration to the water supply before it is disposed of in the sewer for treatment, demonstrating that source controls are a significant means for improving water quality in the Santa Clara River. Based upon the results of the 2002 study, the County Sanitation Districts adopted an ordinance prohibiting the installation and use of new self-regenerating water softeners in 2003 and Automatic Softener Rebate Programs in 2005 (Phase I) and 2007 (Phase II).

Other residential sources of chloride include human waste, laundering, other cleaning activities, and swimming pool filter backwash; this loading adds approximately 31 mg/L of chloride.¹⁹ The combined chloride load from commercial, industrial, and hauled non-industrial waste represents four to 7 percent of the overall chloride concentration in the Valencia WRP's effluent (adding about 12 mg/L chloride).²⁰ Disinfection practices at the Valencia WRP contribute about 12 mg/L, representing approximately four to 9 percent of the total effluent chloride concentration.²¹

Response 30

The commenter states that the Draft EIR fails to accurately disclose the extent of impact from new building. This is incorrect. The existing water quality conditions in the Santa Clarita Valley are addressed in Draft EIR Section 3.12, Hydrology and Water Quality, beginning on page 3.12-16, and in Section 3.13, Water Service, pages 3.13-53 through 3.13-66, and page 3.13-93. Impacts of the Plan relating to the potential to create or contribute runoff water which would provide substantial additional sources of polluted runoff are addressed beginning on Draft EIR page 3.12-26 (Impact Analysis). Section 3.13, Water Service, addresses perchlorate impacts to water supply beginning on Draft EIR page 3.13-139.

The OVOV Plan proposes several goals, objectives, and policies, intended to reduce water quality impacts as a result of new development:

Goal CO 4: An adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems.

¹⁹ Sanitation Districts of Los Angeles County, *Santa Clarita Valley Joint Sewerage System Chloride Source Report*, October 2002.

²⁰ Sanitation Districts of Los Angeles County, *Santa Clarita Valley Joint Sewerage System Chloride Source Report*, October 2002.

²¹ Sanitation Districts of Los Angeles County, *Santa Clarita Valley Joint Sewerage System Chloride Source Report*, October 2002.

- Objective CO 4.3:** Limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and managing stormwater runoff at the source.
- Policy CO 4.3.1:** On undeveloped sites proposed for development, promote on-site stormwater infiltration through design techniques such as pervious paving, draining runoff into bioswales or properly designed landscaped areas, preservation of natural soils and vegetation, and limiting impervious surfaces.
- Policy CO 4.3.2:** On previously developed sites proposed for major alteration, provide stormwater management improvements to restore natural infiltration, as required by the reviewing authority.
- Policy CO 4.3.3:** Provide flexibility for design standards for street width, sidewalk width, parking, and other impervious surfaces when it can be shown that such reductions will not have negative impacts and will provide the benefits of stormwater retention, groundwater infiltration, reduction of heat islands, enhancement of habitat and biodiversity, saving of significant trees or planting of new trees, or other environmental benefit.
- Policy CO 4.3.4:** Encourage and promote the use of new materials and technology for improved stormwater management, such as pervious paving, green roofs, rain gardens, and vegetated swales.
- Policy CO 4.3.5:** Where detention and retention basins or ponds are required, seek methods to integrate these areas into the landscaping design of the site as amenity areas, such as a network of small ephemeral swales treated with attractive planting.
- Policy CO 4.3.6:** Discourage the use of mounded turf and lawn areas which drain onto adjacent sidewalks and parking lots, replacing these areas with landscape designs that retain runoff and allow infiltration.
- Policy CO 4.3.7:** Reduce the amount of pollutants entering the Santa Clara River and its tributaries by capturing and treating stormwater runoff at the source, to the extent possible.
- Objective CO 4.4:** Promote measures to enhance water quality by addressing sources of water pollution.
- Policy CO 4.4.2:** Support the cooperative efforts of property owners and appropriate agencies to eliminate perchlorate contamination on the Whittaker-Bermite property and eliminate the use of any industrial chemicals or wastes in a manner that threatens groundwater quality.

Policy CO 4.4.3: Discourage the use of chemical fertilizers, herbicides and pesticides in landscaping to reduce water pollution by substances hazardous to human health and natural ecosystems.

Goal LU 7: Environmentally responsible development through site planning, building design, waste reduction, and responsible stewardship of resources.

Objective LU 7.3: Protect surface and ground water quality through design of development sites and drainage improvements.

Policy LU 7.3.2: Maintain stormwater runoff on site by directing drainage into rain gardens, natural landscaped swales, rain barrels, permeable areas, and use of drainage areas as design elements, where feasible and reasonable.

Policy LU 7.3.3: Seek methods to decrease impermeable site area where reasonable and feasible, in order to reduce stormwater runoff and increase groundwater infiltration, including use of shared parking and other means as appropriate.

Goal CO.1: A balance between the social and economic needs of Santa Clarita Valley residents and protection of the natural environment, so that these needs can be met in the present and in the future.

Objective CO 1.4: Minimize the long-term impacts posed by harmful chemical and biological materials on environmental systems.

Policy CO 1.4.1: In cooperation with other appropriate agencies, identify pollution sources and adopt strategies to reduce emissions into air and water bodies.

Policy CO 1.4.2: In cooperation with other appropriate agencies, abate or remediate known areas of contamination, and limit the effects of any such areas on public health.

Goal CO 4: An adequate supply of clean water to meet the needs of present and future residents and businesses, balanced with the needs of natural ecosystems.

Objective CO 4.4: Promote measures to enhance water quality by addressing sources of water pollution.

Policy CO 4.4.2: Support the cooperative efforts of property owners and appropriate agencies to eliminate perchlorate contamination on the Whittaker-Bermite property and eliminate the use of any industrial chemicals or wastes in a manner that threatens groundwater quality.

Goal S 4: Protection of public safety and property from hazardous materials.

Objective S 4.1: Identify sites that are contaminated with chemicals and other hazardous materials, and promote clean-up efforts.

Policy S 4.1.2: Coordinate with other agencies to address contamination of soil and groundwater from hazardous materials on various sites, and require that contamination be cleaned up to the satisfaction of the City and other responsible agencies prior to issuance of any permits for new development.

Objective CO 1.5: Manage urban development and human-built systems to minimize harm to ecosystems, watersheds, and other natural systems, such as urban runoff treatment trains that infiltrate, treat and remove direct connections to impervious areas.

The Draft EIR also presents policies present in the Plan as mitigation measures.

The commenter is concerned that there are no proposed funding mechanisms to pay the needed infrastructure upgrades to lower the chloride levels or payment of the fines if chloride levels are not reduced. The Draft EIR is not the forum for addressing such costs. The funding of these services is not under the jurisdiction of City of Santa Clarita, and the provision for funding of mitigation measures does not itself create the prospect of a physical change to the environment. Therefore, is not a potentially significant effect on the environment requiring analysis under CEQA. (Pub. Res. Code, Section 21060.5.) Consequently, this information is not required and no further response is provided.

The combination of moderately low and constant chloride concentration in water supply, banning of SRWS within the project, and the use of recycled water from Valencia WRP within the planning area will result in wastewater with stable chloride concentrations, which, in turn, will lower the overall chloride budget for the Valencia WRP, particularly in succeeding dry years or drought conditions, as well as lowering overall discharge from the Valencia WRP to the Santa Clara River through the use of recycled water. Both of these conditions-stable chloride concentrations in wastewater and use of recycled water-should result in a more efficient and less costly operation for the Valencia WRP. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 31

The commenter suggest the following goals and policies regarding water quality: the OVOV Plan include a timeline and funding mechanisms to provide compliance with the Clean Water Act TMDL for chlorides; mitigation measures that require chloride elimination for all future sanitation district connections and funding for upgrades to the sanitation plants to eliminate chloride from the effluent released to the Santa

Clara River must be included in new connection fees. The comment raises issues that address the OVOV Plan and not the Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required. For related information regarding this topic as addressed in the Draft EIR, please see **Responses 29** and **30** above.

Response 32

The commenter states that traffic will more than double from existing levels to buildout. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 33

The commenter stated that the City of Santa Clarita and the County of Los Angeles must create a funding mechanism to address cumulative impacts described in the Draft Program EIR prior to approval of OVOV. The commenter states that without a funding mechanism, mitigation will not be forthcoming as required due to lack of funding and consequently the mitigation measure is not feasible. There are policies within OVOV as noted page 3.2-39:

“Another objective of the proposed General Plan is to ensure that funding and phasing of new transportation improvements as growth occurs in the City’s Planning Area (Goal C 2 and Objective C 2.6). The City would require that new development would construct or provide its fair share of the cost of transportation improvements, and that required improvements or in-lieu contributions are in place to support the development prior to occupancy (Policy C 2.6.2). The City would also consider implementation of a joint City/County transportation management system impact fee to better address traffic impacts that cannot be mitigated (Policy C 2.6.2). The City would work with other local, regional, state, and federal agencies in identifying funding alternatives for the Santa Clarita Valley’s transportation systems (Policy C 2.6.3). These policies would help maintain a functional and adequate transportation system throughout the Santa Clarita Valley.” The City currently has an established mitigation funding program. This program is called the Bridge and Thoroughfare Program. The Cross Valley Connector, which is a combination of Newhall Ranch Road and Golden Valley Road, was built with B&T funds (in addition to developer contributions and grant funds). The Golden Valley Road bridge over SR-14 will be widened/improved with B&T funds.

No further response is required.

Response 34

The commenter stated that they do not believe diminishing the level of service to D and sometimes E and F is acceptable. The Level of Service standards did not change with the OVOV Plan. As is stated in Section 3.2 Transportation and Circulation, page 3.2-31 the City adopted thresholds of significance discuss the applicable Level of Service thresholds: “The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds.”

Response 35

The commenter voiced concerned with the dates of traffic counts in Table 3.2-4, Existing Level of Service Summary in the Draft Program EIR. The commenter voiced concern that they were out of date, which could misrepresent baseline information. In the Santa Clarita Valley, traffic volumes have historically increased by one to 2 percent per year. With the start of recession in 2007/2008, this historical growth rate has dropped to almost zero. 2010 traffic volumes, therefore, are only a few percent higher than 2005 and 2006 traffic volumes. Since traffic volumes in the Valley have not increased significantly in the past five years, the use of the older data does not affect the analysis or conclusions in the traffic study and associated Draft EIR.

Response 36

The commenter is concerned that the EIR has differentiated Level of Service arterials segments and intersections between the City and the County of Los Angeles. Under the existing GP, 10 arterial segments are projected to operate at LOS F. Under the OVOV GP, the situation would improve to five arterial segments at LOS F. Under the existing GP, 11 intersections are projected to operate at LOS E and one at LOS F. Under the OVOV GP, the situation would improve to seven intersections at LOS E and none at LOS F. The study intersections selected for analysis as part of One Valley One Vision are considered the most significant intersections within the Santa Clarita Valley, and therefore, the most needful of analysis and possible improvement measures. The list of study intersections was not intended to include every arterial intersection in the Valley.

Response 37

The commenter stated that the information provided in Table 3.2-5 is not dated and out of date information will indicate a lower traffic level, consequently the dates of traffic counts should be provided. See **Response 35**, above regarding historical traffic growth and impacts of the recession.

Response 38

The commenter questioned the data used for existing conditions in the traffic study. Existing conditions for purposes of arterial and intersection analysis is based on traffic volume data collected between 2005 and 2010. See **Response 35**, above regarding historical traffic growth and impacts of the recession. 2004 is the year that the traffic model was most recently validated, and the 2004 model information is used for comparison purposes with GP buildout and OVOV buildout model data, not for the existing conditions analysis.

Response 39

The commenter stated that it was impossible to determine if unbuilt projects have been included in the report and if they have been included in the 2004 calculations. Approved, but unbuilt projects are not included in the 2004 traffic model data. Only developments and projects that were actually on the ground and occupied in 2004 are included in the 2004 traffic model data.

Response 40

The commenter questioned the density range for zoning data and whether it was calculated at a low, mid or high range. The commenter believed that this could skew the conclusions in the Draft EIR. Draft Program EIR Section 2.0, Project Description pages 2.0-25 and 25 explain the assumptions and methodology used for population projections:

ANALYSIS ASSUMPTIONS AND METHODOLOGY

Projections for Population and Households

Based on a detailed analysis of the planning area conducted by traffic analysis zones, staff from the City and County have determined that population of the Santa Clarita Valley at full buildout of the uses shown on the land use map of the General Plan will be approximately 460,000 to 485,000 residents, comprising 150,000 to 160,000 households. The methodology used by staff to develop these detailed demographic projections involved the following steps:

- 1. Staff prepared projections for each traffic analysis zone (TAZ) contained in the traffic model. For purposes of traffic modeling, a TAZ is a portion of land within the planning area in which certain land uses have been designated, the development of which is expected to generate new vehicle trips to serve future development. Only undeveloped or underutilized land will be expected to be used for new development that will generate new vehicle trips. Therefore, each TAZ was analyzed to determine the percentage of land that was already fully built out, and the amount of land available for new development or rebuilding. There are 455 TAZs in the traffic model for the planning area.*
- 2. Staff compared each TAZ with a current aerial photograph and Planning Department records to determine the amount of developable land in each one. Land was considered to be*

developable if it was vacant or underutilized, privately owned, designated and zoned for future development, and free of major constraints such as ridgelines and floodways.

3. *For land within each TAZ, staff estimated the projected actual buildout capacity under the draft Land Use Map, considering parcelization, existing and surrounding development, access, topography, drainage patterns, infrastructure capacity, and similar site constraints.*
4. *Portions of the Planning Area outside of the TAZ had trips designated to the nearest TAZ.*
5. *The result of this analysis was an estimated buildout capacity for each TAZ in terms of dwelling unit number and type; non-residential development potential (including commercial, business park, retail, and institutional space); public uses, including government and school facilities, parks and open space; and land devoted to infrastructure (such as streets and highways, transmission corridors, and flood control easements).*
6. *The projections generated from the TAZ analysis represent staff's best efforts to achieve a realistic vision of actual buildout potential for the planning area. In preparing the OVOV land use projections, staff acknowledged that portions of the planning area are already largely developed, and that the General Plan is not based on a "clean slate" of vacant, undeveloped land. Existing uses and development patterns must be recognized in planning for new uses.*

For purposes of a theoretical comparison, the TAZ analysis could be compared to the "worst case" buildout projections of the General Plan land use map. The worst case scenario assumes that all existing uses are subject to demolition, reconstruction, or intensification to achieve the maximum density allowed by the land use map. For example, if an area is designated for single-family residential uses at five dwelling units per acre and the area is already developed at four dwellings per acre, the worst case scenario assumes that the existing subdivisions would be replaced with new subdivisions at a higher density, or that existing units would be subdivided into multi-family structures to achieve the higher density. Because many areas of the Santa Clarita Valley have been developed within the last 20 years with structures that have useful life spans of 50 years or longer, staff determined that it would be unreasonable to assume that all existing development would be replaced with new development at the highest possible density allowed by the land use map. For this reason, the "worst case" scenario under the land use plan was not used as the basis for demographic projections. Instead, the TAZ analysis described above formed the basis for reasonable buildout projections of land use, dwelling units, population, and employment.

There is no low/medium/high range except in the MX and UR 4 and 5 zones.

Response 41

The commenter discusses conclusions made in the Draft Program EIR concerning trip generation and vehicle miles traveled. The comment restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 42

The commenter states that the Draft Program EIR has used the incorrect baseline to conclude that impacts are less than significant. The commenter is incorrect. Baseline to project analysis can be found in Table 3.2-6 Trip Generation – Existing vs. OVOV Buildout, Table 3.2-8 ADT V/C and LOS – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways), Table 3.2-10 ICU And LOS Summary for Principal Intersections – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways). Existing Plan to OVOV Plan comparison was provided to assist the public as to acknowledge the difference between the Plans which was an issue discussed during the Notice of Preparation process.

Response 43

The commenter states that the Draft Program EIR analyzes the old Plan to the future impacts to OVOV and that impacts will be reduced with implementation of policy measures to promote alternative modes of transportation. Please see **Response 42**, above. The comment restates information concerning implementation of policies and mitigation of impacts contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 44

The commenter states that very few of the policies are actually mandated given their verbiage. Please see **Response 14** above.

Response 45

The comment states that the EIR should have an evaluation of the reduction of bike lanes, bus service usage, and Metrolink ridership for usage to determine if there has been an increase in ridership over time. The Program EIR is discussed on a broader scale than what many reviewers are used to seeing, when compared to a Project level EIR. As discussed in Section 1.0, Introduction, page 1.0-7: “This program EIR evaluates the broad-scale impacts of the City’s proposed General Plan. A General Plan EIR, addressing the potential impacts of the City’s goals, objectives, and policies can be thought of as a “first tier” document. It evaluates the large-scale impacts on the environment that can be expected to result from the adoption of the General Plan, but does not necessarily address the site-specific impacts that each of the individual development projects that will follow and implement the General Plan may have. CEQA requires each of those subsequent development projects to be evaluated for their particular site-specific impacts. These site-specific analyses are typically encompassed in second-tier documents, such as project EIRs, focused EIRs, and mitigated negative declarations on individual development projects subject to the General Plan, which typically evaluate the impacts of a single activity undertaken to implement the

overall plan. The program EIR can be incorporated by reference into subsequent documents to focus on new or site-specific impacts.” No further response is required.

Response 46

The commenter believes that the conclusions regarding roadway operations, trip generation and impacts less than significant are patently absurd. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 47

The commenter states that the level of service for roadways within Table 3.2-11 are not consistent or acceptable with plan goals and policies. Additionally such levels of service are not consistent with the policies of regional plans for which OVOV must comply. Analysis of Proposed Area Plan Goals, Objectives and Policies begins on page 3.2-58-63. The Program EIR does not conclude inconsistency. Furthermore, Section 3.1, Land Use discusses the Plan’s consistency with SCAG Regional Transportation Plan Goals and Policies and the SCAG Compass/Growth Visioning Principals. The Program EIR did not conclude an inconsistency with these goals. No further response is required.

Response 48

The commenter suggests that an explanation of the Development Monitoring System be included in the Plan. Please see **Response 17**, above.

Response 49

The commenter believes that verbiage regarding funding mechanisms for road improvements should be included in the Plan. Please see **Response 33**, above.

Response 50

The commenter requests that LOS C requirements be maintained in both the City and County Plans. Please see **Response 34**, above.

Response 51

The commenter suggests that the Plan include feeder transportation to commuter rail and bus stops. “Policy C 1.2.4: Consider location, availability, and accessibility of transit in evaluating new development plans” while not specifically including feeder transportation to accommodate commuter rail and bus stops addresses the need for transit in planning new development.

Response 52

The comment states that the wrong baseline is used for traffic analysis and therefore there is an inconsistency between the traffic and air quality sections of the OVOV EIR. The comment also states that the Draft EIR air quality analysis used URBEMIS2007 to quantify emissions; however, this model does not include new regulations, such as SB 375 and new Title 24 Building Energy Efficiency Standards. The comment also states that the discussion regarding why some emissions would be reduced is confusing.

The air quality analysis utilized the data from the traffic analysis for baseline conditions. The URBEMIS2007 model is an approved air quality recommended for use by the South Coast Air Quality Management District (SCAQMD). The model does not specifically incorporate emission reductions from new regulations such as SB 375 and the new Title 24 Building Energy Efficiency Standards. However, there is no reason why an analysis of these regulations cannot be discussed outside of the model. Furthermore, currently there is no air quality model that incorporates emission reductions from SB 375 because regional plans to comply with SB 375 have yet to be adopted and are not expected until 2012. Regarding why some emissions would be reduced, as stated in the EIR, emissions of NOX and CO are expected to decline in the future even with an increase in vehicle miles traveled due to newer automobile combustion emission standards and fleet turnover (i.e., older more polluting automobiles being replaced by new models that meet more stringent emission standards).

Response 53

The comment states that the Santa Clarita Valley is in a non-attainment area for ozone, PM_{2.5}, and PM₁₀ air pollution, and the approval of the 2007 Air Quality Management Plan allowed an extension of time to comply with federal and state standards. This extension required instituting certain mitigation measures and attainment of "milestones," which were not included in the Draft EIR. The SCAQMD in its 2007 AQMP has put together a list of possible approaches for long-term control measures to reduce ozone and criteria pollutant emissions, which include extensive retirement of high-emitting vehicles and accelerated penetration of PZAVs and ZEVs, expanded modernization and retrofit of heavy-duty trucks and buses, expanded inspection and maintenance program, advanced near-zero and zero-emitting cargo transportation technologies, expanded modernization and retrofit of off-road equipment, more stringent gasoline and diesel specifications and extensive use of diesel alternatives, more stringent emission standards and programs for new and existing ocean-going vessels and harbor craft, advanced near-zero and zero emitting cargo transportation technologies, accelerated replacement and retrofit of high-emitting engines, more stringent emission standards for jet aircraft (engine standards, clean fuels, retrofit controls), ultra-low-VOC formulations and reactivity-based controls, accelerated use of renewable energy and development of hydrogen technology and infrastructure, and AB 32 implementation criteria pollutant reduction technologies. These measures would be implemented by the SCAQMD.

Response 54

The comment states that the “bump-up” to extreme status for ozone would expose the public to high ozone levels for an extended period of time to 2024. The “bump-up” to extreme status was proposed because the magnitude of additional reductions required for attainment was not achievable through existing pollution control approaches. By requesting a bump-up, the SCAQMD would be able to adopt additional emission reduction measures required under the extreme nonattainment status that would otherwise not be required under the lesser status. The SCAQMD in its 2007 AQMP has put together a list of possible approaches for long-term control measures to reduce ozone and criteria pollutant emissions, which include extensive retirement of high-emitting vehicles and accelerated penetration of PZAVs and ZEVs, expanded modernization and retrofit of heavy-duty trucks and buses, expanded inspection and maintenance program, advanced near-zero and zero-emitting cargo transportation technologies, expanded modernization and retrofit of off-road equipment, more stringent gasoline and diesel specifications and extensive use of diesel alternatives, more stringent emission standards and programs for new and existing ocean-going vessels and harbor craft, advanced near-zero and zero emitting cargo transportation technologies, accelerated replacement and retrofit of high-emitting engines, more stringent emission standards for jet aircraft (engine standards, clean fuels, retrofit controls), ultra-low-VOC formulations and reactivity-based controls, accelerated use of renewable energy and development of hydrogen technology and infrastructure, and AB 32 implementation criteria pollutant reduction technologies. These measures would be implemented by the SCAQMD.

Response 55

The comment recommends including the health effects of ozone as described on the EPA air quality website: Ozone – (a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage. The health effects of ozone are described in the EIR in Table 3.3-2 Ambient Air Quality Standards in Section 3.3 Air Quality.

Response 56

The comment states that the attainment date for PM_{2.5} is much earlier than the 2024 extended date for the ozone extreme designation and that the PM_{2.5} plan, due in 2008, is still being processed with the U.S. EPA. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 57

The comment recommends including the adverse health effects for particulate pollution as described by the EPA website: Particulate matter – (a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly. The adverse health effects of particulate pollution are described in Table 3.3-2 Ambient Air Quality Standards in Section 3.3 Air Quality.

Response 58

The comment states that cleanup efforts on the polluted Whittiker Bermite property, and the operation of the CEMEX Mine will add substantial particulate matter in the OVOV project area and therefore these emissions should be included in the air quality analysis. The OVOV General Plan is not proposing or seeking approval of cleanup efforts associated with the Whittiker Bermite property or operation of the CEMEX Mine. Therefore, a project-level assessment for these sites is not provided in the program-level analysis for the proposed OVOV General Plan.

Response 59

The comment states that the OVOV Recirculated Draft EIR violates the new plan Policy LU 1.1.3: “Discourage urban sprawl into rural areas by limiting noncontiguous, “leap-frog” development outside of areas designated for urban use” cited as the means by which air pollution will be reduced. The 42,000 approved but not built units in the City and County Plans, which include Newhall Ranch are located within the applicable land use zoning designations of the OVOV General Plan and Area Plan. Furthermore, the OVOV General Plan and Area Plan designates the Newhall Ranch area as under the Newhall Land Specific Plan, which guides development for the area. In addition, the Newhall Ranch area is contiguous with other residential and commercial zones designated within the OVOV General Plan and Area Plan. Refer to Figure 2.0-4 Proposed Land Use Policy Map. Lastly, the OVOV Recirculated Draft EIR is for the County of Los Angeles Area Plan document and not the City of Santa Clarita Draft Program EIR.

Response 60

The comment states that since the Draft EIR concludes that impacts to particulate matter will be significant, all sources should be included along with mitigation measures to reduce these problems. Section 3.3, Air Quality of the Draft EIR discusses the sources of particulate matter in the Impact Analysis subsection and includes mitigation measures MM 3.3-1 through MM 3.3-9 in the Mitigation Framework subsection. Please refer to these sections for information concerning particulate matter impacts and mitigation measures.

Response 61

The comment describes three of the criteria for assessing air quality impacts under CEQA from Appendix G of the *State CEQA Guidelines*. The comment lists the following thresholds: (a) conflict with or obstruct implementation of the applicable air quality plan; (b) violate any air quality standard or contribute substantially to an existing or projected air quality violation; (c) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). The impact analysis for each of the thresholds is discussed under the Impact Analysis subsection in Section 3.3, Air Quality of the Draft EIR. Please refer to the section for information concerning the impact analysis.

Response 62

The comment restates the following conclusion from the Draft EIR: "Potential air quality impacts from implementation of the proposed General Plan and Area Plan would remain potentially significant after the implementation of mitigation measures." The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 63

The comment states that the Planning Commission and Supervisors routinely approve projects well knowing that they will not meet air quality standards. The comment does not raise any specific issue regarding the analysis in the Draft EIR and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 64

The comment recommends using legally binding language requiring all feasible mitigation to reduce air quality impacts. Additionally, the comment states that although, "black box" future unidentified mitigation is allowed under the "bump up" to the extreme ozone pollution category in the Air Plan, it is not be allowed under CEQA. The Draft EIR Section 3.3 Air Quality includes mitigation measures MM 3.3-1 through MM 3.3-9, which use legally binding language such as "shall use." Moreover, the Draft EIR for the proposed OVOV General Plan does not provide an analysis of the SCAQMD control measures and regulations that are or will be adopted pursuant to the "bump up" to the extreme ozone nonattainment classification requested in the SCAQMD's 2007 Air Quality Management Plan. The information regarding the "bump up" is provided for informational purposes in order to provide

information regarding the air quality regulatory setting of the region. The determination of the project's significance under CEQA was not based on future regulations that will or may be adopted by the SCAQMD under the extreme nonattainment designation.

Response 65

The comment states that mitigation measures must be identified and enforceable. The Draft EIR Section 3.3, Air Quality includes mitigation measures MM 3.3-1 through MM 3.3-9, which use legally binding language such as "shall use." These measures will be enforced through a mitigation monitoring reporting program (MMRP).

Response 66

The comment states that all milestone requirements of the Ozone Reduction Air Plan must be clearly stated, and if the milestones are not met, the mitigation measures must be revised accordingly and the General Plan should be re-evaluated. The SCAQMD adopts rules and regulations to control air pollutant emissions from sources within their jurisdiction. These rules and regulations, which are designed to assist the region in meeting the ambient air quality standards, are implemented by the SCAQMD and are subject to periodic update, change, and revision. Facilities subject to the SCAQMD rules and regulations, including facilities within the proposed OVOV General Plan and Area Plan are required to comply with all applicable measures. As noted in Section 3.3, Air Quality of the Draft EIR, the proposed project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts. This would include any rules or regulations adopted pursuant to the 2007 Air Quality Management Plan and the "bump up" to the extreme nonattainment ozone designation.

Response 67

The comment states that the Air Plans for PM₁₀ and PM_{2.5} are overdue, and the OVOV Plan should not be approved until those Air Plans are completed and appropriate mitigation is incorporated to reduce particulate matter pollution. It is not required for the U.S. EPA to adopt the PM₁₀ and PM_{2.5} Air Plans prior to project approval. The comment does not raise any specific issue regarding the analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 68

The comment states that no air quality trading credits should be allowed for the Santa Clarita Valley. The SCAQMD adopted the Regional Clean Air Incentives Market (RECLAIM) in October 1993. RECLAIM is a federally approved regional cap and trade program created to reduce urban air pollution. RECLAIM was adopted through a public process and public workshops to design the program began in October 1990. Advisory and steering committees included representatives from government agencies to public health,

research and financial organizations, and associated working groups included industries, environmental groups, CARB and the U.S. EPA. Three years later, on October 15, 1993, the RECLAIM program was adopted, with implementation on January 1, 1994. The U.S. EPA approved the RECLAIM program through the California State Implementation Plan (SIP). Pursuant to SCAQMD Rule 2001, facilities that are admitted to RECLAIM may not opt out.

Response 69

The comment states that the Santa Clarita Valley is experiencing substantially increased asthma rates, particularly in children, and with the approval of the OVOV housing plan the current and future population would be condemned to expensive and debilitating health problems. In general, children tend to inhale and retain larger quantities of pollutants per unit body weight than adults. Studies have correlated long-term particulate matter exposures to health impacts such as bronchitis, exacerbation of asthma, and reductions in lung function. The evidence suggested children who spent more time outdoors or who had preexisting respiratory conditions (i.e., asthma) were found to have increased odds of bronchitis and decreased lung function from particulate matter exposure. Several of the studies indicated adverse health impacts at ambient particulate matter concentrations below the previous annual PM₁₀ standard; however, the studies could not clearly and conclusively attribute the impacts among the multiple pollutants present in the ambient air (e.g., ozone, VOCs, NO₂, PM₁₀, etc.). Ultimately, CARB lowered the annual PM₁₀ standard from 30 micrograms per cubic meter (µg/m³) to 20 µg/m³, which assumed a greater likelihood of the health impacts from PM₁₀ and provided a margin of safety. However, since the SCAB currently exceeds this standard, the region has not fully realized the added health benefit of this lower standard.

PM₁₀ is the particulate component of air pollution that can enter the lungs, deposit in the airways, and also penetrate to the periphery of the lungs. PM₁₀ can decrease the growth and development of lung function in school-aged children, and also increases the risk of cardiac disease, heart attacks, and mortality in adults.

According to CARB, “air pollution plays a well-documented role in asthma attacks, however, the role air pollution plays in initiating asthma is still under investigation and may involve a very complex set of interactions between indoor and outdoor environmental conditions and genetic susceptibility.” CARB has funded the Children’s Health Study at the University of Southern California, which found that children who participated in several sports and lived in communities with high ozone levels were more likely to develop asthma than the same active children living in areas with less ozone pollution. The major findings of the Children’s Health Study are as follows:

- Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor, and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.

- Children that were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which is made up of very small particles that can be breathed deeply into the lungs.
- Children living in high ozone communities who actively participated in several sports were more likely to develop asthma than children in these communities not participating in sports.
- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.
- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.
- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

In another CARB-funded study, researchers at the University of California, Irvine found a positive association between some volatile organic compounds and symptoms in asthmatic children. The findings of this study are as follows:

- Ambient VOCs (benzene, ethylbenzene, tetrachloroethylene and m,p-xylene) showed associations with symptoms.
- Criteria pollutants, including ambient ozone, NO₂, SO₂, and PM₁₀ showed significant associations with asthma symptoms.
- Organic carbon and elemental carbon also showed significant associations with symptoms.
- An association was seen between bothersome asthma symptoms and both breath and ambient concentrations of benzene.
- Personal exposures and indoor concentrations were correlated for most VOCs.
- Breath VOC concentrations did not correlate with outdoor VOC concentrations (except for benzene and m,p-xylene).

Additional CARB studies are underway and will focus on the role of particulate matter pollution on asthma. The results of these studies are still pending.

Studies also indicated a linear relationship between adverse health impacts and short-term 24-hour average particulate matter exposures. Again, there was no threshold at which no impacts would occur. However, the studies indicated a greater uncertainty regarding the health impacts at lower ambient

short-term particulate matter concentrations and that longer-term exposures have a greater effect on more serious adverse health impacts, such as childhood bronchitis. The uncertainties were attributable to errors in measurement, impacts from other pollutants, chemical reactions in the atmosphere from various compounds, weather, and socio-economic factors. Thus, CARB retained the existing 24-hour PM₁₀ standard of 50 µg/m³ to acknowledge the short-term exposure uncertainties. In conjunction with the lower annual standard, the overall magnitude and number of short-term peaks would be expected to decline. Thus, according to CARB, the standards together provided a margin of safety for both short-term and long-term particulate matter exposure while still allowing for periodic and seasonal “peaks” that often occur due to wintertime fireplace wood burning or other periodic events.

Epidemiological studies suggest that asthma symptoms can be worsened by increases in the levels of PM₁₀. Epidemiological evidence at present indicates that PM₁₀ increases do not raise the chances of initial sensitization and induction of disease. PM₁₀ is a complex mixture of particle types and has many components and there is no general agreement regarding which component(s) could lead to exacerbations of asthma. However, pro-inflammatory effects of transition metals, hydrocarbons, ultrafine particles and endotoxin, all present to varying degrees in PM₁₀, could be important.

Many studies have demonstrated that acute increases in PM₁₀ result in a greater use of asthma medication, more consultations of physicians, and increased hospital admissions for asthma. A recent review describes an average 2 percent increase in hospitalizations and related health care visits, and an approximate 3 percent increase in asthma symptoms for each 10 µg/m³ rise in PM₁₀ as the average.

The criteria pollutant emissions in the South Coast Air Basin have demonstrated a downward trend since ambient ozone concentrations were first recorded in 1978 (ambient PM₁₀ concentrations were first recorded in 1989). In 2003, the City of Santa Clarita population was estimated at 162,655 according to the California Department of Finance. In 2003, according to air pollutant monitoring data from the SCAQMD, the maximum 1-hour ambient ozone concentration was 0.194 micrograms per cubic meter (µg/m³) and the maximum 8-hour ambient ozone concentration was 0.153 µg/m³. During this same year, the maximum 24-hour state ambient PM₁₀ concentration was 72 parts per million (ppm). In 2008, the City of Santa Clarita population was estimated at 177,045. In 2008, the maximum 1-hour ambient ozone concentration was 0.160 µg/m³ and the maximum 8-hour ambient ozone concentration was 0.131 µg/m³. During this same year, the maximum 24-hour ambient PM₁₀ concentration was 91 ppm. There was a spike in ambient PM₁₀ concentrations in 2007, however, the following years’ ambient PM₁₀ emissions continued the declining trend. As indicated by the data, ozone and PM₁₀ ambient pollutant concentrations have shown a long-term declining trend despite the increase in population between 2003 and 2008. Coupled with the information presented above, population growth is not necessarily an indicator of increased air pollutant levels. Even so, asthma cases may continue to rise; however, there is no general agreement

regarding which pollutants or component(s) of pollutants lead to exacerbations of asthma. Studies by CARB are underway and will focus on the role of particulate matter pollution on asthma. The results of these studies are still pending.

Response 70

The comment states that the City should adopt as part of its goals and policies guidelines for sustainability and green building design, drought tolerant landscape ordinances, and low-impact development similar to the measures adopted by the Los Angeles County Board of Supervisors. The OVOV General Plan contains policies that would require adoption of a green building program. This is contained in Policies CO 8.1.3 and CO 8.3.1.

Policy CO 8.1.3: Revise codes and ordinances as needed to address energy conservation, including but not limited to the following:

- a. Strengthen building codes for new construction and renovation to achieve a higher level of energy efficiency, with a goal of exceeding energy efficiency beyond that required by Title 24;
- b. Adopt a Green Building Program to encourage green building practices and materials, along with appropriate ordinances and incentives;
- c. Require orientation of buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, promote effective use of daylight, and optimize opportunities for on-site solar generation;
- d. Encourage mitigation of the “heat island” effect through use of cool roofs, light-colored paving, and shading to reduce energy consumption for air conditioning.

Policy CO 8.3.1: Evaluate site plans proposed for new development based on energy efficiency pursuant to LEED (Leadership in Energy and Environmental Design) standards for New Construction and Neighborhood Development, including the following: a) location efficiency; b) environmental preservation; c) compact, complete, and connected neighborhoods; and d) resource efficiency, including use of recycled materials and water.

Other representative policies that pertain to sustainability and green building design, drought tolerant landscaping, and low-impact development, which were included in Section 3.4, Global Climate Change, of the Draft EIR, are shown below:

- Policy CO 1.5.1:** Promote the use of environmentally responsible building design and efficiency standards in new development, and provide examples of these standards in public facilities.
- Policy CO 1.5.7:** Consider the principles of environmental sustainability, trip reduction, walkability, stormwater management, and energy conservation at the site, neighborhood, district, city, and regional level, in land use decisions.
- Policy CO 3.1.5:** Promote the use of site-appropriate native or adapted plant materials, and prohibit use of invasive or noxious plant species in landscape designs.
- Policy CO 3.1.7:** Limit the use of turf-grass on development sites and promote the use of native or adapted plantings to promote biodiversity and natural habitat.
- Policy CO 3.1.11:** Promote use of pervious materials or porous concrete on sidewalks to allow for planted area infiltration, allow oxygen to reach tree roots (preventing sidewalk lift-up from roots seeking oxygen), and mitigate tree-sidewalk conflicts, in order to maintain a healthy mature urban forest.
- Policy CO 4.1.3:** Require low water use landscaping in new residential subdivisions and other private development projects, including a reduction in the amount of turf-grass.
- Policy CO 4.3.4:** Encourage and promote the use of new materials and technology for improved stormwater management, such as pervious paving, green roofs, rain gardens, and vegetated swales.
- Policy CO 8.2.1:** Ensure that all new City buildings, and all major renovations and additions, meet adopted green building standards, with a goal of achieving the LEED (Leadership in Energy and Environmental Design) Silver rating or above, or equivalent where appropriate.
- Policy CO 8.3.2:** Promote construction of energy efficient buildings through the certification requirements of the ordinances developed through the County's Green Building Program.

Response 71

The comment states that while the City of Santa Clarita General Plan proposed to increase the amount of residential units and then abate the density by the reduction of units in the County area, County-approved specific plans such as Newhall Ranch and North Lake would already seem to preclude compliance with SB 375 when the Santa Clarita Valley is considered as a whole.

The OVOV General Plan and Area Plan contains goals, policies, and objectives that contain specific measures or targets that the lead agency has adopted that will reduce vehicle miles traveled associated with development that would occur under the General Plan and Area Plan. In particular, Section 3.3, Air Quality, of the Draft EIR lists Goal CO 8, Objective CO 8.1 which specifically requires the City to comply with state law, including AB 32, SB 375, and implementing regulations to reach targeted reductions of GHG emissions. The policies under Objective 8.1 would require the lead agency to reduce motor vehicle GHG emissions using a variety of strategies, such as a Climate Action Plan, General Plan Update, and participation in the Sustainable Communities Strategy (SCS) Plan, which would also reduce associated criteria pollutant emissions. The policies are as follows:

- Policy CO 8.1.1:** Create and adopt a Climate Action Plan within 18 months of the adoption date of the City's General Plan Update that meets State requirements and includes the following components:
- a. Plans and programs to reduce GHG emissions to State-mandated targets, including enforceable reduction measures;
 - b. Mechanisms to ensure regular review of progress towards the emission reduction targets established by the Climate Action Plan;
 - c. Procedures for reporting on progress to officials and the public;
 - d. Procedures for revising the plan as needed to meet GHG emissions reduction targets; and
 - e. Allocation of funding and staffing for Plan implementation.

After adoption of the Climate Action Plan, amend this General Plan if necessary to ensure consistency with the adopted Climate Action Plan.

- Policy CO 8.1.2:** Participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

Policy CO 8.1.1 requires the development of the Climate Action Plan that would implement plans and programs to reduce GHG emissions to state-mandated targets and would include enforceable reduction measures. The Climate Action Plan would also include mechanisms to ensure regular review of progress towards the emission reduction targets, procedures for reporting on progress to officials and the public, procedures for revising the plan as needed to meet GHG emissions reduction targets, and procedures for allocating funding and staffing for Plan implementation.

The County has also adopted policies similar to the two cited above. The related County policies are as follows:

- Policy CO 8.1.1:** Create and adopt a Climate Action Plan within 18 months of the adoption date of the County's General Plan Update that meets State requirements and includes the following components:
- a. Plans and programs to reduce GHG emissions to State-mandated targets, including enforceable reduction measures;
 - b. Mechanisms to ensure regular review of progress towards the emission reduction targets established by the Climate Action Plan;
 - c. Procedures for reporting on progress to officials and the public;
 - d. Procedures for revising the plan as needed to meet GHG emissions reduction targets; and
 - e. Allocation of funding and staffing for Plan implementation.

After adoption of the Climate Action Plan, amend this Area Plan if necessary to ensure consistency with the adopted Climate Action Plan.

- Policy CO 8.1.2:** Participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

Both the City and County are collaborating with the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization (MPO) responsible for complying with SB 375 for the Southern California area. The policies cited above require that both the City and County develop a Climate Action Plan that will achieve State-mandated greenhouse gas targets and participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

Response 72

The comment states that while SB 375 may eventually provide some relief from traffic and air pollution in more urbanized areas or in areas without housing approvals, it seems unlikely to reduce traffic and air pollution in Santa Clarita, which has 42,000 units of existing approvals. The comment also states that without stronger, enforceable goals and policies in the City and County Plans and expiration of existing

tract maps, the concept of lower County densities and higher City densities is not feasible and will only result in higher densities in both areas.

The proposed OVOV General Plan incorporated Mixed-Use Overlay and Mixed-Use land use designation (MX) and the concentration of intensification of land uses along transportation corridors. This land use designation is not part of the existing General Plan. A goal of the proposed OVOV General Plan is to provide a mix of land uses to accommodate growth, supported by adequate resources and maintaining community assets. The increase in residential units in the more dense environs of the City and along transportation corridors will help the City meet the objectives of SB 375 by creating a community that is more walkable and more transit oriented. The proposed OVOV General Plan also reduces the number of units in rural areas surrounding the City in an effort to limit and curtail sprawl. In addition, the policies under Objective 8.1 of the proposed OVOV General Plan would require the City to reduce motor vehicle GHG emissions using a variety of strategies, such as a Climate Action Plan, General Plan Update, and participation in the SCS Plan, which would reduce air pollutant and greenhouse gas emissions from motor vehicles.

Response 73

The comment restates a conclusion from the Draft EIR. The comment does not raise any specific issue regarding the conclusion or the analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 74

The comment states that the only way to reduce greenhouse gas emissions and to clean up the air is to reduce the density in both the City of Santa Clarita General Plan and the Los Angeles County Area Plan. As discussed in **Response D45-69**, historical population data from the State of California and air quality data from the SCAQMD indicates that pollution levels in the Santa Clarita Valley show a long-term reduction trend while population in the City of Santa Clarita has increased over the same period. Therefore, as indicated by the data, density is not necessarily an indicator of a region's air pollutant levels and that growth in population for a region does not necessarily indicate increased air pollutant levels in the same region.

Response 75

The comment states that a Climate Action Plan be developed before or concurrently with this General Plan Update so that its findings and mitigation can be required in the General Plan Goals and Policies and as mitigation in the EIR. The proposed OVOV General Plan contains policies that would require the

City to develop a Climate Action Plan and comply with its obligations under SB 375. The policies are as follows:

- Policy CO 8.1.1:** Create and adopt a Climate Action Plan within 18 months of the adoption date of the City's General Plan Update that meets State requirements and includes the following components:
- a. Plans and programs to reduce GHG emissions to State-mandated targets, including enforceable reduction measures;
 - b. Mechanisms to ensure regular review of progress towards the emission reduction targets established by the Climate Action Plan;
 - c. Procedures for reporting on progress to officials and the public;
 - d. Procedures for revising the plan as needed to meet GHG emissions reduction targets; and
 - e. Allocation of funding and staffing for Plan implementation.

After adoption of the Climate Action Plan, amend this General Plan if necessary to ensure consistency with the adopted Climate Action Plan.

- Policy CO 8.1.2:** Participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

The policies cited above requires that the City develop a Climate Action Plan that will achieve state-mandated greenhouse gas targets and participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

Response 76

The commenter states that the Plan and EIR require addition mitigation in many areas including a revision of the population projections and additional goals and policies. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 77

The commenter urges the City after revisions to the document to adopt a revised version of Alternative 2 which supports wildlife corridors and proposed SEAs by density reduction. The comment only expresses the opinions of the commenter. It should be noted that Alternative 2 in the EIR is the General Plan with Mixed-Use Eliminated and is not consistent with the County's Revised EIR Alternative 2. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 78

The commenter suggests that the City revise any areas proposed for development within the riparian buffer zone of a creek, stream or river, wildlife corridors and groundwater supply and to develop firm policies to protect these areas. The OVOV EIR does not address site-specific development projects. Policies to protect riparian areas and groundwater supply are included in the Conservation and Open Space Element of the OVOV General Plan. Because the comment does not address the Draft Program EIR no further response can be provided. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Response 79

The commenter states that the City must analyze and disclose the effects of global warming on the loss of oaks and oak woodlands in the Santa Clarita Valley. Oak and oak woodland impacts on global warming is more of a project specific analysis. At this time, we do not know how many oak will be removed as a part of OVOV implementation over time. Discussion of tree impacts on global warming is discussed in Section 3.4, Global Climate Change, page 3.4-49 as well as with Objective LU 6.1: Maintain the natural beauty of the Santa Clarita Valley's hillsides, significant ridgelines, canyons, oak woodlands, rivers, and streams. Please see **Revised Pages of the Draft EIR, Section 3.5 Agricultural Resources** in the Final EIR for a discussion of oak woodlands.

Response 80

The commenter states that oak woodlands need to be treated as a significant resource. The commenter noted the loss of oak trees in the Santa Clarita Valley. Please see **Revised Pages of the Draft EIR, Section 3.5 Agricultural Resources** in the Final EIR for a discussion of oak woodlands.

Response 81

The commenter states that the impact of the loss of oak trees must be addressed in relationship to Green House Gas. The commenter states that continued destruction will lead to an increase of global warming.

The comment states that the current requirements for replanting do not appear to be sufficient. Please see **Response 79** above. The comment regarding re-planting efforts not being sufficient does not address the content of the Draft Program EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 82

The commenter stated that permitted oak removals should be discouraged. The commenter further stated that the City should work with developers to design around the oaks instead of allowing removals. The comment only expresses the opinions of the commenter. The City's existing Oak Tree Preservation Ordinance addresses this comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 83

The commenter suggests that when oak tree removals are allowed, fees should be increased to ensure monitoring of mitigation. The City's existing Oak Tree Preservation Ordinance addresses this comment. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 84

The commenter suggests that mitigation oaks should be monitored for a minimum of 5 years and replaced if they do not survive. The City's existing Oak Tree Preservation Ordinance addresses this comment. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 85

The commenter suggested that inclusionary housing should be required in all planning approvals. Inclusionary housing should be promoted and required as mitigation in the City update. The State of California Department of Housing and Community Development (HCD) found that the City's proposed Housing Element was in compliance with the state requirements on July 16, 2010. Because the City has met the requirements of HCD no further modification or mitigation measures to the Housing Element are required. However, the proposed Housing Element includes a policy to evaluate the feasibility of adopting an Inclusionary Housing Ordinance. (Policy H 1.10.) The comment raises issues that do not

appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 86

The commenter states that because the Plans will be administered separately and they depend on actions or mitigations in the other Plan the Plans are not enforceable. The commenter suggests that should the County agree to an increased in density then the City should reduce its density. Please see **Response to Letter 29, SCOPE, Comment 5**. The portion of the comment suggesting that if one jurisdiction increase density, the other should reduce density are the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 87

The commenter suggests that because certain Specific Plans have not received final map approval that the County and City could address this issue by requiring that approvals expire after a certain period of time. The commenter stated that currently, tract maps are granted long extensions. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 88

The commenter states that the City is not acting in good faith to reduce density as is witnessed by the Vista Canyon development. This project will add traffic and air pollution problems. The commenter asks how will mitigation measures in the City's Plan prevent such land use approvals in the future. All discretionary projects will be reviewed consistent with OVOV applicable goals, objectives, and policies.

Response 89

The Plan is unenforceable without the use of stronger language and should be rewritten with language at least as strong in the current Plan. Please see **Response 14**, above.

Response 90

The comment is noted. No further response is required given that the comment does not address or question the content of the Draft EIR.

Jason Smisko

From: Jennifer Kilpatrick [jekilpatrick@hotmail.com]
Sent: Wednesday, February 23, 2011 1:57 PM
To: Jason Smisko; HELPDESK
Subject: FW: Submission of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates
Attachments: BermiteDTSCApprovesOU2OU6RAPDec2010.pdf; Whittaker_Site-Wide RAP_Sections 1-8_113010.pdf; Whittaker_Draft RAP OU2-OU6_DTSC Approval ltr_71510.pdf

FORWDING OF FIRST EMAIL SENT YESTERDAY

From: jekilpatrick@hotmail.com
To: mglaser@planning.lacounty.gov; jsmisko@santa-clarita.com
Subject: Submission of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates
Date: Wed, 23 Feb 2011 00:42:51 +0000

TO: Los Angeles County Regional Planning & City of Santa Clarita Planning Departments
Attention: Mitch Glaser & Jason Smisko

RE: Comments on One Valley, One Vision General Plan Updates for County's Santa Clarita Valley Area and City of Santa Clarita Valley

DATE: 2/22/11

FROM: Jennifer Kilpatrick for Santa Clarita Organization for Planning the Environment (SCOPE)

I am attaching, as a formal comment on the OVOV General Plans now pending before the County and City, a copy of the California Department of Toxic Substances Control's "Final Remedial Action Plan (RAP) for Operating Units 2 through 6 at Whittaker Bermite. My emails with the DTSC Project Manager, Jose Diaz, below, authenticate the documents.

1

The reason that SCOPE is submitting these DTSC documents, as well as the others to which Mr. Diaz refers on DTSC's website, is to remind both the County and the City that the Whittaker Bermite property's Operating Units 2, 3, 4, 5 and 6 are very far from being remediated to toxic substances to such an extent that three "paper" major roads in the City of Santa Clarita will be built in the near future. Those "paper" major roads are:

2

2/23/2011

- (1) Via Princessa on the Whittaker Bermite property;
- (2) Santa Clarita Parkway on the Whittaker Bermite property and across the Santa Clara River; and
- (3) An extension of Magic Mountain Parkway from its current intersection with Railroad Avenue up into the Bermite property.

2

As I am sure you know, the owner of the Whittaker Bermite property is supposed to pay for design and construction of those roads and their necessary bridges, as part of the conditions to development of the so-called Porta Bella Specific Plan.

3

We are hereby advising you that because the DTSC approved remediation of the soil on the Whittaker Bermite property has not yet been remediated, the remediation is far from being completed and the roadbeds for those three roads are located in OU2 through OU6 on Whittaker Bermite, any use of those three roads, for the purpose of running traffic studies analyzing levels of service for roads in the County or City or for concluding in the text of the Circulation Elements in the OVOV plans that no County or City roads will operate at LOS E or LOS F is pure sophistry, or to put it less politely, a breach of the various California statutes and regulations governing preparation and the content of General Plans. It would be legitimate to include those "paper" roads in traffic studies and LOS calculations were the ground on which they are built fully remediated of toxins and released by DTSC for road building. However, that is not factually the case, nor is it likely to be the case for at least 5 years or more, or more if the routes of the roadbeds traverse (a) soil heavily contaminated with TCE or PCE (carcinogenic volatile organic chemicals) or (b) the multiple landfills (contents factually unknown) located within the Whittaker Bermite property.

4

As a result, SCOPE and all other participants in the planning process reserve the right to administratively and judicially challenge the factual assumptions in the County's and City's traffic models supporting the OVOV General Plans, as well as the traffic Level of Service determinations resulting therefrom which are stated in the Circulation Elements and in other parts of the plan.

5

Under separate cover, I will be forwarding to you Whittaker Corporation's January 2011 status report letter to DTSC which talks about "where they are" in the actual remediation process on each Operating Unit.

6

SCOPE suggests that your departments re-run your traffic models, reports and LOS calculations without those three "paper" roads through Whittaker Bermite and to be

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2/23/2011

paid for by Whittaker Bermite's land owner, which as you know are presently in Chapter 11 bankruptcy in Phoenix in a case called In Re RFI Realty, Inc. USBC Case No. 02-04-bk-10486-CGC.

7

> Date: Tue, 22 Feb 2011 15:41:51 -0800
> From: Jdiaz@dtsc.ca.gov
> To: jekilpatrick@hotmail.com
> Subject: RE: Looking for Final RAP on Whittaker Bermite OU2-OU6 Dated 11/30/10
>
> The Final RAP approved for implementation is dated November 30, 2010 as indicated in the December 6, 2010 DTSC letter and can be found in the Activities Section. The final RAP contains final CEQA documents and the Responsiveness Summary. I attached the front end (Sections 1-8) of the document.
>
> The draft RAP dated July 12th, 2010 was approved for public review comment per the July 15, 2010 DTSC letter (attached) and can also be found in the Activities Section and the Community Involvement section.
>
> I have deleted the draft RAP dated July 12th, 2010 from the Activities Sections to clear up any confusion. Please refer to the actual dates on the documents and not the dates on Envirostor as sometimes we are unable to meet some deadlines. I apologize for any confusion with the documents. Please contact me any questions.
>
>
> >>> Jennifer Kilpatrick <jekilpatrick@hotmail.com> 2/22/2011 1:12 PM >>>
>
> Thanks for your reply. I have seen what was posted on Envirostor under Activities. However the date of the "Final RAP" on Envirostor is in July 2010, not the November 30, 2010 Final RAP date which the DTSC letter approving the Final RAP recited. (See the attached letter.) Perhaps the DTSC approval letter had the wrong date in it.
>
> If the Final RAP for OU2-OU6 is already on Envirostor, just email me the exact July 2010 date which Whittaker's consultant put on the first page of what you consider to be the Final RAP. That way there will be a paper trail linking the Final RAP and the approval letter.
>
> Again, note that the reason that we are seeking a well documented paper trail to what is the Final RAP for OU2-OU6 is not for any DTSC related colloquy, but instead because it is going to be submitted to the City Council in connection with their consideration of rewording of Santa Clarita's General Plan update to reflect what's left to be done at Bermite, which foreshadows how quickly 3 major "paper" roads can be built through Bermite (Santa Clarita Pkwy, Magic Mountain Pkwy and Via Princesa).
>
> Thanks for your help.

2/23/2011



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
9211 Oakdale Avenue
Chatsworth, CA 91311



Arnold Schwarzenegger
Governor

July 15, 2010

Dr. Hassan Amini
AMEC Geomatrix Consultants, Inc.
510 Superior Avenue, Suite 200
Newport Beach, CA 92663

Draft Remedial Action Plan for Operable Units (OU) 2 through 6 - Former Whittaker-Bermite Facility, Santa Clarita, California

Dear Dr. Amini,

The Department of Toxic Substances Control (DTSC) has reviewed the July 12, 2010 revision of the Draft Remedial Action Plan (RAP) for OU2 through OU6. DTSC hereby approves the draft RAP for public review and comment. The public comment period will start July 19, 2010 and will end on August 19, 2010. A public meeting will be held on July 29, 2010 at 1830 hours in the Council Chambers of the Santa Clarita City Hall. Following the completion of the public comment period, DTSC will evaluate all comments received on the draft RAP and determine whether any revisions are necessary. Please contact me at (818) 717-6561 with any questions.

Sincerely,

José F. Diaz, R.E.H.S.
Senior Project Manager
Brownfields & Environmental Restoration Program
Southern California – Chatsworth Office

♻️ Printed on Recycled Paper

July 15, 2010
Page 2 of 2

cc:

The Honorable Laurene Weste
City of Santa Clarita
Council Member
22216 Placerita Canyon Road
Newhall, California 91321

The Honorable Bob Keller
City of Santa Clarita
Council Member
23920 Valencia Boulevard, Suite 300
Santa Clarita, California 91355

Ms. Connie Worden-Roberts
Chairperson of the Community Advisory Group
25709 Rye Canyon Road
Santa Clarita, California 91355

Mr. Eric G. Lardiere
Vice President, General Counsel
Whittaker Corporation
1955 North Surveyor Avenue
Simi Valley, California 93063

Ms. Lisa Webber
Planning and Building Services
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, California 91355-2196

RECEIVED

Jason Smisko

FEB 22 2011

From: Jennifer Kilpatrick [jekilpatrick@hotmail.com]
Sent: Tuesday, February 22, 2011 5:01 PM
To: mglaser@planning.lacounty.gov; Jason Smisko
Subject: Submission of Most Recent Remediation Progress Report on Whittaker Bermite OU2-OU6 Dated for Administrative Record on One Valley, One Vision General Plan Updates
Attachments: BermiteJanuary2011WhittakerProgressReport.pdf

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

**TO: Los Angeles County Regional Planning & City of Santa Clarita Planning
Departments
Attention: Mitch Glaser & Jason Smisko**

**RE: Comments on One Valley, One Vision General Plan Updates for County's Santa
Clarita Valley Area and City of
Santa Clarita Valley**

DATE: 2/22/11

**FROM: Jennifer Kilpatrick for Santa Clarita Organization for Planning the
Environment (SCOPE)**

I am attaching, as a follow up on the formal comment I emailed to you today, on the OVOV General Plans now pending before the County and City, a copy of the January 2011 monthly report by Whittaker Corporation's lead toxics remediation consultant to the California Department of Toxic Substances Control concerning the status of Whittaker Corporation's remediation of Operating Units 1 through 6 at Whittaker Bermite.

The three "paper" major roads shown on OVOV's Circulation Element and other elements, and referred to in my longer comment to you, on behalf of SCOPE, as of today's date, have their roadbeds in DTSC Operating Units 2-6. Those "paper roads" are:

- (1) Via Princessa on the Whittaker Bermite property;
- (2) Santa Clarita Parkway on the Whittaker Bermite property and across the Santa Clara River; and
- (3) An extension of Magic Mountain Parkway from its current intersection with Railroad Avenue up into the Bermite property.

2/23/2011

Again, the reason that SCOPE is submitting the attached Whittaker Corporation monthly report to DTSC, is to remind both the County and the City that the Whittaker Bermite property's Operating Units 2, 3, 4, 5 and 6 are very far from being remediated of toxic substances to such an extent that three "paper" major roads in the City of Santa Clarita will be built in the near future.

We are hereby advising you that because the DTSC approved remediation of the soil on the Whittaker Bermite property has not yet occurred, and the remediation is far from being completed and approved by DTSC where the roadbeds for those three roads are located in OU2 through OU6 on Whittaker Bermite, any use of those three roads, for the purpose of running traffic studies analyzing levels of service for roads in the County or City or for concluding in the text of the Circulation Elements in the OVOV plans that no County or City roads will operate at LOS E or LOS F is pure sophistry, or to put it less politely, a breach of the various California statutes and regulations governing preparation and the content of General Plans. It would be legitimate to include those "paper" roads in traffic studies and LOS calculations were the ground on which they are built fully remediated of toxins and released by DTSC for road building. However, that is not factually the case, nor is it likely to be the case for at least 5 years or more, or more if the routes of the roadbeds traverse (a) soil heavily contaminated with TCE or PCE (carcinogenic volatile organic chemicals) or (b) the multiple landfills (contents factually unknown) located within the Whittaker Bermite property.

As a result, SCOPE and all other participants in the planning process reserve the right to administratively and judicially challenge the factual assumptions in the County's and City's traffic models supporting the OVOV General Plans, as well as the traffic Level of Service determinations resulting therefrom which are stated in the Circulation Elements and in other parts of the plans.

SCOPE suggests that your departments re-run your traffic models, reports and LOS calculations without those three "paper" major roads through Whittaker Bermite and to be paid for by Whittaker Bermite's land owner, which as you know are presently in Chapter 11 bankruptcy in Phoenix in a case called In Re RFI Realty, Inc. USBC Case No. 02-04-bk-10486-CGC.

2/23/2011



January 14, 2011

Project No. 9967.000.0

Mr. Jose Diaz
Department of Toxic Substances Control
Site Mitigation Branch
9211 Oakdale Avenue
Chatsworth, California 91311

**Re: Former Bermite Facility, Santa Clarita, California
Summary Report for December 2010**

Dear Mr. Diaz:

This letter constitutes a progress report for the month of December 2010, prepared pursuant to Task 4 and Section 6.3 of the "Imminent and Substantial Endangerment Determination and Order and Remedial Action Order" (the Order) that the Department of Toxic Substances Control (DTSC) issued on November 22, 2002, for the former Bermite facility (site) in Santa Clarita, California.

SECTION I – SOIL ISSUES

Specific actions taken on behalf of the respondent, actions expected to be undertaken, and planned activities for soil issues are summarized in the following sections.

OU1 REMEDIATION

Activities for This Report Period (1)

All excavation, bio-treatment, backfilling, and slope restoration activities for Operable Unit (OU1) remediation program were completed during previous reporting periods. CDM subsequently completed the draft remedial action completion report that was submitted to the DTSC. The DTSC provided review comments in a letter dated June 8, 2010 and requested that a revised report or a response to comments be submitted by July 15, 2010. CDM submitted the response to comments letter to the DTSC on July 15, 2010. The DTSC acknowledged the response to comments on July 21, 2010 and indicated acceptance of the final OU1 report once the soil vapor extraction (SVE) operations have been completed and incorporated into the report.

No activities were conducted during this reporting period regarding the OU1 remedial action completion report.

Anticipated Activities for This Month

No anticipated activities this month.

AMEC Geomatrix, Inc.
510 Superior Avenue, Suite 200
Newport Beach, CA
USA 92663-3627
Tel (949) 642-0245
Fax (949) 642-4474
www.amecgeomatrixinc.com

AMEC Geomatrix



Mr. Jose Diaz
Department of Toxic Substances Control
Site Mitigation Branch
January 14, 2011
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Long-Term Actions

Upon completion of the SVE operations in OU1, incorporate the SVE data, and submit the final remedial action completion report to the DTSC.

Activities for This Report Period (2)

As a follow up to the meeting held with the DTSC on September 23, 2010 regarding the status and the completion of SVE operations in OU1 and attainment of the remedial goals in Area 43 and Building 329, the DTSC indicated that they agreed that further active SVE operations were no longer needed for the OU1 areas, pending the results of confirmation soil gas sampling in Areas 7, 43, 55, and Building 329.

CDM prepared a memo summarizing the proposed scope of work for the confirmation soil gas sampling, which was submitted to the DTSC for review on January 5, 2011.

Anticipated Activities for This Month

Respond to questions or comments from the DTSC on the memo and schedule field activities.

Long-Term Actions

Document post-SVE soil gas conditions and decommission the SVE systems.

SITE-WIDE SOILS REMEDIAL ACTION PLAN FOR OU2 THROUGH 6 (SITE-WIDE SOILS RAP)

Activities for This Report Period

The final version of the OU2-6 RAP (the Site-Wide Soils RAP), which included revisions in response to comments received during the public comment period, was submitted to the DTSC on November 30, 2010. DTSC approved the Site-Wide Soils RAP in its letter dated December 6, 2010. The remedial actions outlined in the approved Site-Wide Soils RAP will be followed and used as the basis for the Remedial Design documents.

Anticipated Activities for This Month

No further actions are planned.

SITE-WIDE SOILS REMEDIAL DESIGN FOR OU2 THROUGH 6

Activities for This Report Period

Additional field investigations were initiated at the Site on November 22, 2010 in support of the Site-Wide Soils Remedial Design (RD) to fill in data gaps for the proposed perchlorate excavation areas. During this reporting period, CDM continued with the additional investigation activities.

CDM also continued with preparation of the RD document.

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Site Mitigation Branch
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Anticipated Activities for This Month

Continue the additional investigation and preparation of the RD document.

Long-Term Actions

Upon completion of the additional investigation, incorporate the results, and finalize the draft RD document for submittal to the DTSC for review.

PILOT STUDIES (SVE)

Activities for This Report Period

CDM had previously prepared a pilot study work plan for SVE of VOC-impacted soils at OU2 through OU6. The DTSC approved the revised SVE work plan in a letter dated October 22, 2008.

The field pilot programs for Areas 2, 4, 27, 31/45, 53/54/72, Area 14-South, Area 14-Central, and Hula Bowl Canyon I were completed during prior reporting periods. During this reporting period CDM worked on addressing review comments to the SVE pilot study report received from Whittaker/AMEC.

Anticipated Activities for This Month

Address review comments/revisions received from Whittaker/AMEC and finalize the draft for submittal to the DTSC.

Long-Term Actions

Complete the SVE pilot study report for submittal to the DTSC. Incorporate the results of the SVE pilot study to the Site-Wide Soils RD document for OU2 through OU6.

PILOT STUDIES (GEDIT)

Activities for This Report Period

CDM had previously prepared a pilot study work plan for in-situ bioremediation of perchlorate impact to deep soils via Gaseous Electron Donor Injection Technology (GEDIT). The DTSC provided conditional approval of the GEDIT work plan on November 14, 2008.

The laboratory bench-scale treatability study for the GEDIT pilot study was completed during a previous reporting period.

During this reporting period, CDM continued with the data evaluation and report preparation.

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Anticipated Activities for This Month

Complete the treatability study report and submit to Whittaker/AMEC for review.

Long-Term Actions

Complete GEDIT bench-scale treatability documentation reports for submittal to the DTSC. Incorporate the results of the bench-scale study to determine the feasibility of the field GEDIT pilot study.

PILOT STUDIES (SVE/DPE)

Activities for This Report Period

CDM conducted Phase II (DPE for saturated zone soils) and Phase III (combined SVE and DPE operations), the final post-test sampling event, and decommissioned the pilot study system operation in Area 48/49 of OU5.

CDM continued with data evaluation and preparation of the pilot study report.

Anticipated Activities for This Month

Complete data evaluation and preparation of the pilot study report for submittal to the Whittaker/AMEC for review.

Long-Term Actions

Complete pilot study report for submittal to the DTSC. Incorporate the results of the pilot study into the RD document.

SECTION II – SOILS INTERIM REMEDIAL MEASURES AND REMOVAL ACTIONS

DEPLETED URANIUM (DU) INVESTIGATION AND CLEARANCE ACTIVITIES

Activities for This Report Period

EnergySolutions incorporated comments received on the second draft of the Final Status Survey (FSS) report and sent it to Whittaker/AMEC for review on December 21, 2010.

Anticipated Activities for This Month

EnergySolutions will incorporate any additional comments received from Whittaker/AMEC and provide final report to Whittaker/AMEC.

Long Term Actions

Submit the FSS report to the DTSC, California Department of Public Health (DPH) – Radiological Health Branch, and Los Angeles County Radiological Section.

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MEC INVESTIGATION AND CLEARANCE ACTIVITIES

Activities for This Report Period

EODT submitted the draft investigation report for the MEC clearance conducted during the DU-impacted soil removal to Whittaker/AMEC for review.

Anticipated Activities for This Month

Complete investigation report for the MEC clearance for DU-impacted soil removal.

Long Term Actions

Submit investigation report to the DTSC. Clear potential MEC from areas (i.e., Hula Bowl II/III) identified as removal sites in the HSA report. Complete the MEC investigation and confirmation in the areas designated as Further Investigation and No Further Action Areas, respectively.

SECTION III – GROUNDWATER AND SURFACE WATER ISSUES

Specific actions taken on behalf of the respondent, actions expected to be undertaken and planned activities for groundwater and surface water issues are summarized in the following sections.

GROUNDWATER (OU7) FEASIBILITY STUDY

Activities for This Report Period

The draft OU7 Feasibility Study (FS) report was provided to the DTSC and the Castaic Lake Water Agency (CLWA) for review and comment in late April. The DTSC provided comments on the draft OU7 FS in a letter dated October 18, 2010 and requested submittal of the revised OU7 FS by November 19, 2010. In order to allow additional time to incorporate comments provided by the CLWA, the DTSC approved an extended submittal date of January 19, 2011. The CLWA's comments were received on January 5, 2011.

To support the OU7 FS evaluations, step drawdown testing was conducted in selected OU6 perched zone wells to assess hydraulic properties. In addition, a bench-scale treatability test for enhanced biodegradation of perchlorate and VOCs was performed on a water sample collected from the perched water beneath OU6.

Anticipated Activities for This Month

The draft OU7 FS is being revised to incorporate the DTSC and the CLWA comments. The revised report will then be submitted to the DTSC and distributed to other stakeholders. Evaluation of potential pilot studies for the OU6 perched zone will continue.

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Site Mitigation Branch
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Long-Term Actions

Complete revisions to the draft OU7 FS report and use it as the basis to develop the OU7 RAP.

INTERIM REMEDIAL MEASURES AND PILOT PROGRAMS FOR GROUNDWATER

SAUGUS AQUIFER EXTRACTION PILOT PROGRAM

Activities for This Report Period

The Work Plan, Saugus Aquifer Pilot Remediation Well Network, Operable Unit 7 was submitted to DTSC on September 22, 2008. DTSC provided comments on November 18, 2008 and subsequently provided conditional approval of the Work Plan on December 31, 2008. Implementation of the Work Plan started by AECOM and BC2 in November 2009 and continued during this period. The work accomplished during this period is summarized below:

- Drilling activities continued using two full-time onsite drilling rigs.
- Completed installation of PZ-7B, and PZ-7C;
- Continued installation of RMW-8A and RMW-8B. Installed five temporary wells in the boreholes for RMW-8A and RMW-8B, including RMW-8A-T1 (200'-210'), RMW-8A-T2 (235'-245'), RMW-8B-T1 (265'-275') RMW-8B-T2 (300'-310'), and RMW-8B-T3 (335'-345');
- Purged and sampled temporary wells RMW-8A-T1 (200'-210'), RMW-8A-T2 (235'-245'), RMW-8B-T1 (265'-275') RMW-8B-T2 (300'-310') and RMW-8B-T3 (335'-345');
- Completed step-drawdown tests at RMW-7B and EW-3B;
- Completed a 24-hr pump test at EW-2A,
- Purged and sampled RMW-4A;
- Continued management of drilling and aquifer testing derived wastes; and,
- Continued data collection, management, and analysis.

Anticipated Activities for This Month

- Continuation of drilling and well installation activities in accordance with the scope of work outlined in the Work Plan. The field program will be modified, as needed, based on site observation and weather conditions;
- Continuation of well development and groundwater sampling activities;
- Continuation of step-drawdown and pump tests; and,
- Data collection, management, and analysis.

Long-Term Actions

Implement the Saugus Aquifer Extraction Pilot Program. Incorporate the results of the groundwater pilot program into OU7 RAP and remedial design document.

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NORTHERN ALLUVIUM GROUNDWATER TREATMENT SYSTEM (NATP) OPERATION

Activities for This Report Period (1)

An Interim Remediation Pumping Program was started in Northern Alluvium Areas 11, 67, and 75 in 2006. An alternate extraction well 75-MW-35 (for higher groundwater extraction) and six hot spot wells were connected to the new higher capacity groundwater treatment system in 2007. Sustained pumping of extraction well 75-MW-35 that began in mid-October 2007 continues to date, with the exception of a brief period of shut down for treatment system maintenance.

As of December 2010, approximately 32,525,994 gallons of impacted water was treated and discharged in compliance with the National Pollutant Discharge Elimination System (NPDES) permit. Approximately 24 percent of the treated volume during December 2010 was from the extraction wells of the Northern Alluvium pumping system. Of the remaining 76 percent of treated volume, 51 percent was from investigation/monitoring waste water generated during the EW-2A and EW-2B aquifer tests. The remaining 25 percent of treated volume was from storm water retained on site.

The December monthly compliance sample for the NATP was collected on December 6, 2010. The sampling results indicated that the system was in compliance with the discharge requirements of the NPDES permit during December 2010.

Media were replaced in the treatment vessels as follows:

- December 6, 2010 – removed/replaced perchlorate and GAC media
- December 13, 2010 - removed/replaced nitrate media
- December 20, 2010 - removed/replaced perchlorate media. Perchlorate vessels were moved to the temporary storm water filtration and treatment system, discussed below.

Installation and testing of a temporary storm water filtration and treatment system began in December 2010 to process storm water collected in the storm water retention ponds. The temporary treatment system is intended to minimize the volume of storm water processed in the NATP by treating and discharging storm water to one of the other approved discharge locations specified in the NPDES permit. Initial compliance sampling for outfall M-004 was conducted December 27, 2010. The sampling results for outfall M-004 indicated that the temporary storm water filtration treatment system was in compliance with the discharge requirements of the NPDES permit during December 2010. Discharge to outfall M-004 was initiated on December 27, 2010. During December 2010, approximately 60,100 gallons of impacted water was treated and discharged to outfall M-004 in compliance with the NPDES permit.

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Department of Toxic Substances Control
Site Mitigation Branch
January 14, 2011
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Anticipated Activities for This Month

- Continue the pumping, treatment, and discharge system operation and routine weekly and monthly NPDES compliance sampling and media change outs as needed.
- Evaluate need for a temporary storm water filtration system depending on the weather and accumulation of stormwater.
- Monitoring of the aquifer response to pumping from the alternate extraction well 75-MW-35 and the downgradient site boundary low flow extraction wells will continue.

Long-Term Actions

Continue operating the extraction and treatment system and conduct additional performance monitoring. Evaluate NATP performance and provide recommendations to be incorporated to the OU7 RAP.

Activities for This Report Period (2)

Potential application of remedial technologies for Northern Alluvium groundwater hot spots, including evaluation of the Area 75 boundary containment established by sustained operation of the low flow pumping wells is being addressed in the OU7 FS. As stated in Section I – Pilot Studies (SVE/DPE) above, a work plan for soil vapor extraction and dual-phase extraction pilot study at Area 48/49 was submitted to DTSC on August 2, 2010. DTSC approved this work plan on August 23, 2010.

CDM completed the field pilot study and decommissioned the pilot study system during the previous reporting period, and conducted data evaluation and preparation of the pilot study report.

Anticipated Activities for This Month

Continue with data evaluation and preparation of the pilot study report for submittal to the DTSC.

Long-Term Actions

Complete pilot study report for submittal to the DTSC. Additional source control measures in the Northern Alluvium will be considered and recommended where determined to be necessary.

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Department of Toxic Substances Control
Site Mitigation Branch
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GROUNDWATER MONITORING

Activities for This Report Period

- Continued optimization of the groundwater database;
- Continued preparation of the third quarter groundwater monitoring report,
- Prepared a revised Annual Groundwater Monitoring Report and submitted to the DTSC.

Anticipated Activities for This Month

- Complete and submit the third quarter groundwater monitoring report.

Long-Term Actions

- Continue monitoring and reporting of the proposed network of monitoring wells on the updated schedule presented in Technical Memorandum No. 8.

Storm Water Monitoring

Activities for This Report Period

Pursuant to the site Storm Water Pollution Prevention Plan, Environ continued coordinating the implementation of short-term surface water run-off mitigation measures. Implementation of the short-term mitigation measures is being coordinated with CDM, particularly in the areas of the site where soil remediation activities have occurred. Surface water run-off sampling was conducted following significant rainfall events in accordance with the site-wide surface water runoff sampling plan.

Anticipated Activities for This Month

Upgrades to the short-term mitigation measures will continue as necessary. CDM is working on a plan for upgrading the short-term mitigation measures. Surface water run-off sampling will be conducted following significant rainfall events in accordance with the site-wide surface water runoff sampling plan.

Long-Term Actions

Long-term mitigation of the drainages and excavations will be conducted in conjunction with the soil remediation.

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Mr. Jose Diaz
Department of Toxic Substances Control
Site Mitigation Branch
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RCRA MONITORING AND CLOSURE

Activities for This Report Period (1)

AMEC submitted documentation supporting clean closure certification of the former Building 317 Resource Conservation and Recovery Act (RCRA)-permitted lined surface impoundment on November 11, 2009 for DTSC review. The DTSC has reviewed the documents and discussed the matter with the Whittaker's team in two teleconferences. Whittaker's team also met with DTSC on August 11, 2010 and provided additional support and recommendations for a path forward for clean closure of the RCRA unit.

Anticipated Activities for This Month

We are anticipating a response from the DTSC to our request for closure and our recommended path forward.

Long-Term Actions

Proceed with closure of the RCRA unit and incorporate all remaining remedial and monitoring activities to OU2 through OU6 and OU7 RAPs.

Activities for This Report Period (2)

Complete the third quarter 2010 groundwater monitoring report.

Anticipated Activities for This Month

The third quarter 2010 RCRA groundwater monitoring report was submitted to the DTSC on January 3, 2011. Begin preparation of the fourth quarter 2010 RCRA groundwater monitoring report.

Long-Term Actions

The current RCRA groundwater monitoring program will be modified to include proposed wells and frequency and the DTSC input to the monitoring plan.

SECTION IV – REQUIREMENTS UNDER THE ORDER THAT WERE NOT COMPLETED

All requirements of the Order were completed. Whittaker has met or exceeded all the substantive requirements of the Order.

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Mr. Jose Diaz
Department of Toxic Substances Control
Site Mitigation Branch
January 14, 2011
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SECTION V – PROBLEMS OR ANTICIPATED PROBLEMS IN COMPLYING WITH THE ORDER

Following the DTSC's agreement with Whittaker's proposed modifications to implementation plans in compliance with the Order reflected in the letter dated September 28, 2004, the DTSC's letter dated July 11, 2005, included a schedule for submitting a number of documents. All deadlines have been met and documents have been submitted per requested schedule.

SECTION VI – RESULTS OF SAMPLE ANALYSIS, TESTS, AND OTHER DATA

Whittaker has instructed its contractors to continue to provide the DTSC staff with raw data sets for ongoing quarterly groundwater monitoring events and RI/FS work upon receipt from the lab.

Sincerely yours,
AMEC Geomatrix, INC.

Hassan Amini, PhD, CHG
Project Coordinator

cc: Eric Lardiere, Esq., Whittaker Corp; Joseph Armao, Winston & Strawn, LLP; William Weaver, CDM; Jessica Donovan, ENVIRON; Paul Bergstrom, Knight Piésold; Jay Ferguson, EODT; Robert Woodard, Energy Solutions; Essi Esmaili, AECOM; Tim Bricker, Santa Clarita L.L.C.; Megan Trend, Chubb Financial Solutions; Cindy Hunter, MariKay Fish, Julie Diebenow, Chartis; Vitthal Hosangadi, NOREAS; Nadine Hunt-Robinson, Zurich North America; Jeff Hogan, City of Santa Clarita; Yueh Chuang, CH2M Hill; Kathy Stryker Anderson, US Army Corps of Engineers; Keith Abercrombie, Valencia Water Company; Lynn Takaichi, and Meredith Durant, Kennedy Jenks; David Bacharowski, RWQCB; James Leserman, Castaic Lake Water Agency; Steve Cole, Newhall County Water District; Mauricio Guardado, Santa Clarita Water; Neil Elsey, Avion Holdings LLC; Alisa Lacey, Stinson Morrison Hecker LLP; Jeff O'Keefe, Department of Public Health.

W:\Project\Docs\Monthly Progress Reports\2010\December 10.doc

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FEB 22 2011

Jason Smisko

From: Jennifer Kilpatrick [jekilpatrick@hotmail.com]
Sent: Tuesday, February 22, 2011 6:37 PM
To: mglaser@planning.lacounty.gov; Jason Smisko
Subject: Submission of PARTS 1-4 of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates
Attachments: BermiteOU2-OU6RAPNov302010DTSCApproval.pdf; BermiteOU2-6Nov302010RAPPt1.pdf; BermiteOU2-6Nov302010RAPPt2.pdf; BermiteOU2-6Nov302010RAPAppAthruE.pdf

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

In follow up to my emailed comment on behalf of SCOPE addressed to the County and City, in care of you, dated 2/22/11 entitled "Submission of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates" attached please find the FIRST FOUR of SIX PARTS of the full document, including DTSC's approval letter and the full Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10, including appendices (the "Final RAP").

As indicated in the email of Mr. Jose Diaz, DTSC's Project Manager for Whittaker Bermite, which I forwarded to you with the documents he attached, his agency's email system did not permit him to attach and email the full Final RAP. As a result, I downloaded it off DTSC's Envirostor webpage for Whittaker Bermite, and the full document is attached. For your information, that page is:

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=19281087 and the document posting date is 12/6/10.

This email should be treated as a supplement to SCOPE's previous comment email, sent by me today.

Thank you for your attention to this matter.

cc: Jose Diaz

2/23/2011



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
9211 Oakdale Avenue
Chatsworth, CA 91311



Arnold Schwarzenegger
Governor

December 6, 2010

Dr. Hassan Amini
AMEC Geomatrix Consultants, Inc.
510 Superior Avenue, Suite 200
Newport Beach, CA 92663

APPROVAL OF REMEDIAL ACTION PLAN FOR OPERABLE UNITS 2 THROUGH 6 - FORMER WHITTAKER-BERMITE FACILITY, SANTA CLARITA, CALIFORNIA

Dear Dr. Amini,

The Department of Toxic Substances Control (DTSC) approves the final Remedial Action Plan (RAP) for Operable Unit (OU) 2 through 6 prepared by CDM dated November 30, 2010 for implementation. DTSC prepared a Responsiveness Summary and filed Mitigated Negative Declaration and Notice of Determination in compliance California Environmental Quality Act

The RAP presents the remedial goals and objectives and the strategy for achieving remedial goals. The overall objective is to cleanup those areas of the Site where past manufacturing and testing operations have caused chemical contamination to soils that pose an unacceptable risk to human health and the environment. The selected remedial action includes a combination of approaches and technologies to address the varied contamination at the Site that includes in-situ soil vapor extraction (SVE), excavation, off-site disposal for soils not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils, ex-situ biological treatment and in-situ biological treatment.

The draft RAP, dated July 12, 2010, was made available for public comment from July 19, 2010 to August 19, 2010 and a public hearing was held on July 29, 2010. DTSC reviewed and evaluated the comments received and requested revisions to the RAP accordingly. A copy of the Responsiveness was previously provided and is included in Appendix E of the RAP. No changes were made to the proposed methods to address the contamination in soil and soil gas in OU2 through OU6 and the deeper soils in OU1.

♻️ Printed on Recycled Paper

December 6, 2010

Page 2 of 2

Please submit the Remedial Design by February 18, 2011. Please contact Mr. Jose Diaz at (818) 717-6614 or me at (818) 717-6612 with any questions.

Sincerely,



Javier Hinojosa
Unit Chief
Brownfields & Environmental Restoration Program
Southern California – Chatsworth Office

Cc:

The Honorable Laurene Weste
City of Santa Clarita
Council Member
22216 Placerita Canyon Road
Newhall, California 91321

The Honorable Bob Keller
City of Santa Clarita
Council Member
23920 Valencia Boulevard, Suite 300
Santa Clarita, California 91355

Ms. Connie Worden-Roberts
Chairperson of the Community Advisory Group
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Mr. Eric G. Lardiere
Vice President, General Counsel
Whittaker Corporation
1955 North Surveyor Avenue
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Ms. Lisa Webber
Planning and Building Services
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
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Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

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Arnold Schwarzenegger
Governor

December 6, 2010

Dr. Hassan Amini
AMEC Geomatrix Consultants, Inc.
510 Superior Avenue, Suite 200
Newport Beach, CA 92663

APPROVAL OF REMEDIAL ACTION PLAN FOR OPERABLE UNITS 2 THROUGH 6 - FORMER WHITTAKER-BERMITE FACILITY, SANTA CLARITA, CALIFORNIA

Dear Dr. Amini,

The Department of Toxic Substances Control (DTSC) approves the final Remedial Action Plan (RAP) for Operable Unit (OU) 2 through 6 prepared by CDM dated November 30, 2010 for implementation. DTSC prepared a Responsiveness Summary and filed Mitigated Negative Declaration and Notice of Determination in compliance California Environmental Quality Act

The RAP presents the remedial goals and objectives and the strategy for achieving remedial goals. The overall objective is to cleanup those areas of the Site where past manufacturing and testing operations have caused chemical contamination to soils that pose an unacceptable risk to human health and the environment. The selected remedial action includes a combination of approaches and technologies to address the varied contamination at the Site that includes in-situ soil vapor extraction (SVE), excavation, off-site disposal for soils not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils, ex-situ biological treatment and in-situ biological treatment.

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♻️ Printed on Recycled Paper

December 6, 2010
Page 2 of 2

Please submit the Remedial Design by February 18, 2011. Please contact Mr. Jose Diaz at (818) 717-6614 or me at (818) 717-6612 with any questions.

Sincerely,



Javier Hinojosa
Unit Chief
Brownfields & Environmental Restoration Program
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1955 North Surveyor Avenue
Simi Valley, California 93063

Ms. Lisa Webber
Planning and Building Services
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, California 91355-2196

Jason Smisko

From: Jennifer Kilpatrick [jekilpatrick@hotmail.com]
Sent: Tuesday, February 22, 2011 6:46 PM
To: mglaser@planning.lacounty.gov; Jason Smisko
Subject: FW: Submission of PARTS 5-6 of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates
Attachments: BermiteOu2-6Nov302010RAPAppFpt1.pdf; BermiteOU2-6Nov302010RAPAppFpt2.pdf

In follow up to my emailed comment on behalf of SCOPE addressed to the County and City, in care of you, dated 2/22/11 entitled "Submission of Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10 for Administrative Record on One Valley, One Vision General Plan Updates" attached please find the LAST TWO of SIX PARTS of the full document, including DTSC's approval letter and the full Final Remedial Action Plan on Whittaker Bermite OU2-OU6 Dated 11/30/10, including appendices (the "Final RAP").

As indicated in the email of Mr. Jose Diaz, DTSC's Project Manager for Whittaker Bermite, which I forwarded to you with the documents he attached, his agency's email system did not permit him to attach and email the full Final RAP. As a result, I downloaded it off DTSC's Envirostor webpage for Whittaker Bermite, and the full document is attached. For your information, that page is:

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=19281087 and the document posting date is 12/6/10.

This email should be treated as a supplement to SCOPE's previous comment email, sent by me today.

Thank you for your attention to this matter.

cc: Jose Diaz

RECEIVED

FEB 22 2011

COMMUNITY DEVELOPMENT
CITY OF SANTA CLARITA

2/23/2011

Jason Smisko

From: Jennifer Kilpatrick [jekilpatrick@hotmail.com]
Sent: Wednesday, February 23, 2011 1:31 PM
To: Jason Smisko
Subject: Yesterday's 4 Separate Emails Submitting DTSC Documents and SCOPE Comments for Administrative Record on OVOV

Jason:

There were 4 separate emails from me on SCOPE's behalf to you on the City's behalf, yesterday:

1 where I commented on SCOPE's behalf forwarded Jose Diaz's email with attachments of the Bermite OU2-OU6 Final RAP dated 11/30/10 text which would fit on his email system

1 where I commented on SCOPE's behalf and forwarded the January 2011 Bermite Status Report letter from Whittaker to DTSC

1 where I downloaded from DTSC's website as referred to by Jose Diaz the first 4 of 6 parts of the Bermite OU2-OU6 Final RAP dated 11/30/10 (i.e. more of the file Jose couldn't load on his system in full) and forwarded them as a supplement to my prior emails from that day.

1 where I downloaded from DTSC's website as referred to by Jose Diaz the last 2 of 6 parts of the Bermite OU2-OU6 Final RAP dated 11/30/10 (i.e. more of the file Jose couldn't load on his system in full) and forwarded them as a supplement to my prior emails from that day.

Thanks for checking in by email. I phoned you, as requested but then realized that you were probably at lunch, so I'll phone you again later today when I'm sure you will be back from lunch.

Jennifer

From: JSMISKO@santa-clarita.com
To: jekilpatrick@hotmail.com
Subject: RE: Submission of Most Recent Remediation Progress Report on Whittaker Bermite OU2-OU6 Dated for Administrative Record on One Valley, One Vision General Plan Updates
Date: Wed, 23 Feb 2011 18:44:23 +0000

Hi Jennifer,

Please call me at your earliest convenience 661.255.4306. I want to ensure I received all of the documents you referenced and provided.

Thank you,

*Jason Smisko
Senior Planner
City of Santa Clarita
661-255-4306*

From: Jennifer Kilpatrick [mailto:jekilpatrick@hotmail.com]
Sent: Tuesday, February 22, 2011 5:01 PM
To: mglaser@planning.lacounty.gov; Jason Smisko
Subject: Submission of Most Recent Remediation Progress Report on Whittaker Bermite OU2-OU6 Dated for

2/23/2011

Remedial Action Plan Operable Units 2 through 6

**Former Whittaker-Bermite Facility
Santa Clarita, California**

November 30, 2010

Prepared for:

Whittaker Corporation

Prepared by:

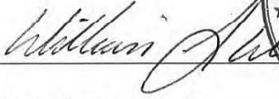
CDM

111 Academy, Suite 150
Irvine, California 92617

Project No. 20415-62863-T2.REPORT

This document titled, *Remedial Action Plan, Operable Units 2 through 6, Former Whittaker-Bermite Facility, Santa Clarita, California*, dated November 30, 2010, and has received appropriate technical review and approval. This document was prepared under the supervision of a California Professional Geologist.

Reviewed and Approved by:



Professional Geologist Seal: A circular seal for William J. Weaver, Professional Geologist No. 8738, State of California. The seal includes the text "PROFESSIONAL GEOLOGIST" at the top and "STATE OF CALIFORNIA" at the bottom. A handwritten note "exp 8/31/12" is written across the seal.

William J. Weaver, P.G.
Principal



Steven L. Brewer
Sr. Vice President

CDM

ii

P:\20415 Whittaker\62863 Site-Wide RAP\7.0 Project Documents\7.2 Final Documents\November 2010 Final\Site-Wide Final RAP 11-30-10.docx

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- Appendix D Administrative Record
- Appendix E Responsiveness Summary
- Appendix F Final CEQA Documents

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Section 1

Introduction

1.1 Purpose

This Remedial Action Plan (RAP) has been prepared pursuant to the Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (the Order) issued to Whittaker Corporation (Whittaker) by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) on November 22, 2002 (DTSC, 2002) for the former Bermite facility (the Site) in Santa Clarita, California (Figure 1-1). For effective management of site characterization and remediation, the Site has been divided into seven operable units (OUs) with OU1 through OU6 designated for soils and OU7 for groundwater beneath the Site (Figure 1-2). Characterization of all OUs has been completed and perchlorate remediation of the shallow soils in OU1 was completed in 2009 as proposed in the approved remedial action plan by excavation and ex-situ bioremediation. A draft remedial action completion report (RACR) was submitted to the DTSC in March, 2010. The RACR documented the shallow soil excavations and ex situ bioremediation operations and also summarized the status of the ongoing soil vapor extraction (SVE) systems for soils impacted by volatile organic compounds (VOCs). DTSC, in a letter dated June 8, 2010, stated that “excavation and ex situ bioremediation of perchlorate impacted soils in OU1 has been successfully completed and DTSC concurs that no additional excavation and ex- situ soil treatment is necessary”. DTSC further indicated that SVE remedial activities should continue until the remedial action objectives stated in the OU1 RAP are met. The SVE operations for OU1 were recently completed and confirmation soil-gas sampling is planned to document that the objectives of the OU1 RAP have been met.

The area addressed in this RAP encompasses OUs 2 through 6. It also considers the deep soils for OU1 not previously addressed in the OU1 RAP and Remedial Design (RD) documents. The preparation of this RAP follows the completion of a series of remedial investigations, health risk analyses, literature reviews, treatability studies, field pilot tests of ex-situ soil treatment, feasibility studies, and interim cleanup and other measures protective of human health and the environment that Whittaker has conducted starting in 1995 and continuing to date under work plans submitted to and approved by DTSC.

The actions proposed in this RAP are an integral part of a comprehensive remedial strategy and multi-track remediation approach that addresses all media (i.e. soil, soil gas, surface water, perched water, and groundwater) at the Site and the immediate surrounding area, that have been impacted from historic manufacturing and testing operations. It has been prepared in concert with and complements the other remediation activities that are underway to control and/or contain and remove the effects of the chemicals detected in those media and for the ultimate goal of protection of human health and the environment. To that end, this RAP has been prepared specifically to address the soils within the OU2 through OU6 and the deeper

soils within OU1 as referenced above and, therefore, it needs to be reviewed with the understanding that the ultimate goal of protection of human health and environment will be achieved through the collective implementation of this RAP and other remedies that are being planned and will be implemented.

This RAP presents the methods that are proposed to remediate OU2-OU6 soils (and the deeper soils in OU1) that contain perchlorate, halogenated volatile organic compounds (HVOCs), and metals at levels exceeding risk-based cleanup goals, and the rationale used in developing the remedial strategies. The remedial methods are proposed within the general context of a comprehensive strategy to address all impacted media and prepare the Site for future beneficial use. The overall approach for the remediation of the soil at the Site will include integration with the groundwater remedies and future Site redevelopment. This approach is risk-based, and will allow sufficient flexibility to adjust to and coordinate the remedial efforts with any Site redevelopment or reuse plans that may arise. In its current condition, approximately 85 percent of the area at the Site is free of any shallow chemical impacts and is suitable for unrestricted land use from an environmental standpoint. Provided appropriate remedial measures are taken to mitigate the impacts and risks, the majority of the remainder of the Site can be rendered suitable for unrestricted land use with some areas likely suitable for other forms of land use.

The feasibility study (FS) for selection of appropriate groundwater (OU7) remedies was recently submitted to DTSC for review (ENVIRON, 2010). The OU7 FS addresses all three occurrences of groundwater (i.e. Northern Alluvium, Saugus, and Perched Water) at the Site. Meanwhile, an interim remedial program for containment and remediation of perchlorate and VOC impacted groundwater is currently being conducted for the Northern Alluvium aquifer. In addition, a plan for a pilot program for containment and remediation of perchlorate and VOC impacted groundwater within the Saugus formation along the western Site boundary (ENVIRON, 2008) has been reviewed and approved by DTSC and is being implemented. The data obtained from this pilot program will be utilized to design a full-scale groundwater containment system for the Saugus formation along the western Site boundary. Further, the pumping and wellhead treatment implemented at the Saugus 1 and 2 production wells will provide containment and remediation of impacted groundwater within the capture zone of these wells. Therefore, once all measures implemented, the results of the comprehensive remedial approach will be protective of human health and the environment, taking into consideration the various impacted media (soil, soil-gas, surface water, perched water, and groundwater), and the exposure pathways associated with these media. The key elements of the comprehensive remedial approach will include the following:

- Implementation of proven risk-based soil and groundwater remedial measures. Certain technologies (i.e., soil vapor extraction [SVE]) and groundwater containment/pump and treat, have been initiated under pilot scale programs in order to obtain key critical data needed to develop full-scale remedial systems;

- Implementation of removal actions to quickly address contaminants that may pose an immediate threat to human health or the environment;
- Evaluation of the potential success and applicability of a selected number of innovative in-situ technologies to address impacted groundwater, perched water, and deep soils under the Site conditions;
- Integration of remedial measures between the various impacted media; and
- Retaining flexibility for integration of remedial efforts with future Site redevelopment plans.

These elements of the remedial approach are discussed further in Section 1.3.1.

1.2 Remedial Objectives

The overall objective of the remedial program is to clean up those areas of the Site where past manufacturing and testing operations have caused chemical impact to soils at levels that pose an unacceptable risk to human health or the environment. This program will be implemented within the general context of anticipated future Site redevelopment. Although the default remedial goal for this RAP is to allow unrestricted land use, the RAP also provides the capacity to apply institutional and/or engineering control measures and land use restrictions in cases where unrestricted land use risk levels cannot be met after the implementation of the remedy.

The specific objectives of this RAP are:

- Application of risk-based remedial goals for protection of human health and the environment; and
- Selection of remedial measures that were found appropriate based on the approved Feasibility Study (FS) for source areas at the Site in order to meet the risk-based remedial goals.

The objectives of this RAP are intended to be in line with the comprehensive strategy to address soil and groundwater remediation, and will meet the following goals:

1. Protection of human health.
2. Protection of ecological receptors.
3. Protection of surface water quality.
4. Protection of groundwater quality.

The remedial goals consider different risk tolerance levels that are appropriate for alternative land uses (e.g., commercial/industrial, multifamily residential, open

space) under various redevelopment scenarios; but, as stated above, the default remedial goals for this RAP are based upon unrestricted land use.

The achievement of remedial goals will be confirmed through sampling and analysis to demonstrate that residual concentrations of chemicals do not pose an unacceptable risk to human health or the environment. If the remedial goals cannot be achieved through implementation of the remedies proposed in this RAP, then deed restrictions, institutional controls, and/or engineering controls will be considered to manage the residual risks to human health.

The objectives for this RAP were developed within the context of a global and comprehensive approach to soil and groundwater remediation at the Site, which is discussed further in the following sections.

1.3 Overall Approach for Achieving Remedial Goals

The remedial goals and objectives stated in Section 1.2 above will be addressed through a comprehensive site remediation approach and through application of conventional remedial methods, as well as a number of innovative technologies, if found to be appropriate. This approach is discussed in the following sections.

1.3.1 Site Remediation Approach

As previously described, the Site was divided into six soil OUs and one groundwater OU. Although the dividing the Site into seven OUs has proven to be an appropriate approach that has resulted in effective characterization of chemical impact to affected media at the Site, any evaluation of remedial measures must be conducted within context of an overall global and comprehensive Site remediation approach. For the former Whittaker-Bermite facility, the global site remediation approach will be protective of human health and the environment, taking into consideration the various impacted media (soil, soil-gas, surface water, perched water, and groundwater), and the exposure pathways associated with these media. Conceptual site models depicting various media and the chemical transport pathways are presented in Section 4.3. The remedial approach includes the following key components.

- **Implementation of proven risk-based soil and groundwater remedial measures that have been evaluated and selected through the FS and based on their ability to effectively address:**
 - Protection of human health from exposure to chemicals in surface and near surface soils.
 - Protection of ecological receptors from exposure to chemicals in surface and near-surface soils.
 - Protection of surface water quality.

- Protection of groundwater quality.
- Protection of downgradient receptors (public supply wells).
- **Implementation of remedial measures to address risk-based cleanup goals according to anticipated end land use scenarios** - The default remedial goals for this RAP will be based on unrestricted land use levels, but flexibility will be maintained to coordinate the remediation program with future redevelopment and apply the alternative risk-based goals specific to differing planned land uses in the event that new Site development plans are in place at the time of cleanup. For the purpose of this RAP, the risk-based threshold concentrations (RBTCs) for unrestricted land use will be applied for all areas of the Site. However, RBTCs may not be technically and practically achievable in all cases. Based on the physical constraints at certain areas, and magnitude and extent of chemical impacts in specific areas of the Site, unrestricted land use for these areas, which are discussed further in Section 7, may not be technically and/or practically feasible; however, these areas would likely be suitable for commercial land use, recreational land use, or open space. The determination of technical and/or practical feasibility will be evaluated and discussed between Whittaker and DTSC, but the final determination will be made by DTSC. Following is a summary of the chemical impact, affected media, exposure pathways, and remedial measures that can be implemented for protection of human health and the environment:
 - For soil impacted by non-volatile compounds (e.g., perchlorate, metals, etc.), the exposure pathways are generally limited to the upper ten feet of soil as construction and/or household activities in most residential or commercial settings (e.g. gardening, landscaping, swimming pool installations) do not typically exceed this depth. However, in order to ensure that future users of the Site are not exposed to elevated concentrations of COPCs exceeding the RBTCs, the depth of the proposed remedies will extend to at least 10 feet below the proposed final surface elevations presented in the approved Porta Bella Plan. Therefore, in areas where the proposed final grades are at lower elevations than the existing land surface (i.e. future cut areas), the remedial efforts may extend to greater depths than 10 feet in order to meet the remedial objectives.
 - For soil impacted by VOCs, the exposure pathway for human health concerns extends beyond the upper ten feet due to the vapor intrusion pathway, which is considered for the upper 100 feet in accordance with EPA guidance. In areas where the proposed final grades are at lower elevations than the existing land surface (i.e. future cut areas), the evaluation of the vapor intrusion risks will extend to appropriate depths beyond 100 feet. Pending the outcome of those evaluations, the remedial efforts may also need to extend beyond 100 feet in order to meet the remedial objectives. For areas exceeding the RBTCs for the anticipated land use, it is presumed that SVE will be the likely remedy. If residual VOC concentrations persist and exceed the applicable RBTCs after

SVE operations, then institutional and/or engineered controls, as approved by DTSC, may be applied under non-residential use scenarios to mitigate the residual risks.

- The protection of groundwater resources will be addressed in one of two ways, as applicable. For soils exceeding the soil screening levels (SSLs) for protection of groundwater in Northern Alluvium or SSLs for protection of surface water, the soils would be addressed directly through selected soil remedial measures. For soils exceeding the SSLs for protection of Saugus aquifer, where the majority of the impacted soils extend to depths beyond the reach of conventional remedial measures, the groundwater will be protected through the installation and operation of a western boundary groundwater containment system (discussed in further detail below). Additionally, an innovative in situ technology (i.e., gaseous electron donor injection technology [GEDIT]) will be evaluated first on a bench-scale level, and if successful, followed by a field pilot scale study to assess applicability and potential effectiveness (both technical and cost) of addressing these deeper impacted soils. It must be noted that groundwater will be protected by the western boundary containment system even if GEDIT is not proved to be a viable option.
 - Potential remedial measures to address impacted perched water zones, which also represent ongoing sources of chemical impact to deeper aquifers, are being evaluated through bench-scale studies and in situ field pilot studies. The perched water issues will be specifically addressed as part of the OU7 RAP. Additionally, as stated above, the Saugus groundwater will be protected by the western boundary containment system even if effective remedial measures are not identified to address the perched water zones directly.
- **Implementation of removal actions to address contaminants that may pose an immediate threat to human health or the environment** - This strategy has already been implemented within OU2 and OU5 soils to remove a sump containing titanium tetrachloride ampoules, red phosphorous impacted soils, underground storage tanks, flare casings, and seepage pits that could act as conduits for contaminant transport. This strategy is also currently being implemented through the construction and operation of an interim groundwater containment system along the northern Site boundary in Northern Alluvium.
 - **Implementation of “industry proven” in-situ technologies for soil and groundwater cleanup (i.e., SVE and groundwater containment/pump and treat)** - Work plans have been submitted to and approved by DTSC for pilot studies for SVE for selected areas at the Site impacted by VOCs and groundwater containment along the western property boundary within the Saugus aquifer. The SVE pilot work and Saugus containment work are currently underway. There are several benefits associated with the implementation of the pilot studies, which include: 1) provide critical data from which to determine feasibility of various

remedial technologies and/or necessary data to design full-scale remedial actions; 2) acceleration of the overall remediation schedule, particularly for those areas where remedial excavations may be delayed until the in-situ remedial measures have been completed; and 3) the pilot studies will likely result in appreciable mass removal of chemicals from subsurface soils and groundwater which is consistent with the overall remedial objectives.

- **Integration of remedial measures between the various impacted media. The evaluation and selection of remedial measures for a particular media must take into account the effect of planned actions for other media** - This comprehensive strategy is an important factor in developing efficient, appropriate, and cost effective remedies. Additionally, in some cases multiple media may be addressed through a single remedial measure. For example, plans are currently underway to pilot dual-phase extraction (DPE) in a portion of OU5 to address the chemical impact to both unsaturated and saturated zones.

This RAP has been prepared in consideration of the aforementioned comprehensive remedial strategy that includes measures necessary to address both shallow and deeper impacted soils as well as appropriate groundwater remedies for the Site. Although this RAP does not present the specific groundwater remedial alternatives, it has been prepared within the context of conducting adequate on-site groundwater containment activities to prevent/limit off-site movement of chemicals from the Site, while reducing on-site groundwater chemical mass. The groundwater containment efforts consist of the following elements:

- Northern alluvium containment system (OU5) - There is an operating system that currently extracts and treats approximately 60 gallons per minute (gpm) of groundwater, and is permitted for up to 100 gpm.
- On-site Saugus formation containment (OU7) - A Work Plan for Saugus Aquifer Pilot Remediation was submitted to DTSC in September 2008 to install the initial wells, conduct pumping tests, and modeling to obtain aquifer parameters and criteria for the design of a full-scale system (ENVIRON, 2008). DTSC provided comments and approved the work plan on December 31, 2008. Implementation of the work plan is underway and it is expected that the full-scale system will contain the chemically impacted zones of Saugus Aquifer within the Site boundary through extraction and treatment of approximately 300 to 500 gpm groundwater.
- Off-site Saugus formation containment at Saugus 1 and Saugus 2 Production Wells - This system, which is currently under construction, and is expected to be on line in 2010, will contain and remediate impacted groundwater within its capture zone, while protecting other water supply wells downgradient of the Saugus 1 and 2 production wells.

This context is significant, and a comprehensive approach for shallow and deeper soil, and groundwater containment and treatment, is necessary because there is a significant uncertainty regarding the practicability of a remedial alternative for deep perchlorate impacted soils. However, regardless of the degree of success of on-site source removal measures for deep soils, mitigation and protection of groundwater resources will be achieved. The OU7 FS addresses perched on-site groundwater, groundwater in Northern Alluvium, and deeper Saugus groundwater.

1.3.2 Consideration of Innovative Technologies

As directed by DTSC, the approved Site-Wide FS (CDM, 2007) included innovative in-situ technologies as a remedial alternative for the treatment of deep perchlorate-impacted soils, pending successful field pilot testing of such technologies. It is important to note that these technologies have not been tested or proven to be appropriate for treatment of deep soil and groundwater under the Site conditions; thus several assumptions regarding their application were required. Because of the uncertainty of these unproven technologies, on-site pilot testing work plans have been submitted to and approved by DTSC. At the conclusion of those pilot studies, the application of those innovative technologies as remedial measures will need to be further evaluated for potential implementation under various Site conditions.

1.4 Incorporation of Future Redevelopment Plans

The City of Santa Clarita has approved a large scale, mixed use development plan for the property known as the "Porta Bella Plan." These entitlements are now held by the current owner of the property, Remediation Financial Inc. / Santa Clarita LLC (SCLLC), which purchased the property from Whittaker in 1999. SCLLC agreed to clean up the contamination at the Site pursuant to an enforceable agreement with the DTSC, but since filed bankruptcy; consequently, DTSC issued the Order to Whittaker to study and cleanup the Site. Under the bankruptcy court's oversight, the property is currently being marketed for development as a multi-use community.

Since the drafting of the Porta Bella Plan in 1995, a significant amount of environmental investigative work has been conducted across the Site. Based upon the findings of those investigations, DTSC has acknowledged that some of the Site areas designated for unrestricted land use under the Porta Bella Plan, are unlikely to be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in this document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan, as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions may not be technically and/or practically feasible. These areas are discussed further in Section 7. It should also be noted that cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.

The incorporation of the Porta Bella Plan grading envelope into this RAP, which would likely be similar to other alternative redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades.

1.5 Organizational Content

The following summarizes the organizational content of the RAP:

- **Section 2.0, Site Location and History.** This section provides relevant background information on the Site.
- **Section 3.0, Physical Setting.** This section discusses climate, topography, geology, soil types, soil characteristics, hydrogeology, hydrology, background levels of COPCs, and surrounding land use.
- **Section 4.0, Summary of Remedial Investigations.** This section describes and summarizes the results of the remedial investigations (RI) that were conducted to identify and quantify the nature and extent of COPCs in potentially impacted soils.
- **Section 5.0, Summary of Site Risks.** This section describes and summarizes the results of baseline human health and ecological risk assessments that were conducted on the basis of the RI findings and presents the remedial goals for the Site.
- **Section 6.0, Summary and Evaluation of Alternatives.** This section summarizes the remedial alternatives evaluation and selection from the feasibility study (FS).
- **Section 7.0, Proposed Remedy.** This section discusses how the proposed remedy will be implemented at the Site, the rationale for the selected remedy, and a discussion of staging and timeframe for remedial actions.
- **Section 8.0, References.** This section lists the references cited in this document.
- **Section 9.0, Figures.**
- **Section 10.0, Tables.**

Section 2

Site Location, Description, and Background

2.1 Location and Description

The Bermite facility is located at 22116 West Soledad Canyon Road in Santa Clarita, California. The Site encompasses 996 acres and is situated in Township 4 North, Range 16 West, Sections 23, 24, 25, and 26 within the U.S. Geological Survey (USGS) 7.5-minute, Newhall, California topographic quadrangle (Newhall topographic map and Figure 1-1, Site Location Map). The Bermite facility is currently inactive with approximately 30 buildings formerly used for administration and/or storage remaining. Former process, manufacturing, and test facilities have been removed. Several security/maintenance personnel currently work at the Bermite facility. The Los Angeles Aqueduct transects the eastern portion of the property through an underground conveyance system. Producing oil fields are located approximately 0.5 mile southeast and 1.2 miles northwest of the Bermite facility. A commuter rail station has been built on an approximately ten acre parcel located in the northern area of the property along Soledad Canyon Road. The property is in the process of being marketed for development of a master-planned community including residential, commercial, retail, and may include light industrial components.

2.2 Ownership History

The area was originally subdivided by Newhall Land & Farming Company and Los Angeles Home Company in 1912 and is comprised of three parcels. Parcel 1 is the northern portion of the Site that is currently occupied by the commuter rail station. Parcel 2 is the southern, roughly square-shaped area of the property. Parcel 3 is the western portion of the Bermite facility. Previous owners included Los Angeles Powder Company from 1934 to 1936, Halifax Explosives Company from 1936 to 1942, E. P. Halliburton, Inc., in 1942, Bermite Powder Company from 1942 to October 1967, Whittaker Corporation from 1967 to 1999, and Santa Clarita LLC from 1999 to the present. All of these companies, with the exception of Santa Clarita LLC, utilized the facility for production of munitions and explosives, including dynamite, fireworks, oil field explosives, and photoflash devices.

2.3 Early History and Use

During most of the early history, manufacturing was restricted to the northern portion of the property and through time the plant expanded toward the southeast and into the central portion of the property. From 1934 to 1936, the Bermite facility was used to manufacture dynamite under the ownership of L.A. Powder Company. Historical information indicates that the Halifax Explosives Company manufactured fireworks at the Bermite facility from 1936 to 1942. In 1939, Golden State Fireworks made fireworks at the Bermite facility. In 1942, E.P. Halliburton reportedly manufactured oil field explosives. Production by the Bermite Powder Company was carried out from 1942 to 1967. Between 1942 and 1953, Bermite Powder Company produced a more limited line of products that included flares, photoflash devices for

battlefield illumination, and other explosives. The “Bermite” name was applied to a blasting product made from a mixture of the high explosives trinitrotoluene (TNT) and cyclonite (RDX). Neither constituent was synthesized on Site but, rather, was purchased as a raw material. From 1953 to 1967, production consisted primarily of detonators, fuses, boosters, coated magnesium, and stabilized red phosphorus.

2.4 Whittaker History and Use

Between 1967 and 1987, under Whittaker ownership, the Bermite facility manufactured various products in the general categories described below.

The overall operation/production at the Bermite facility was dependent on contract orders. These orders affected the number of employees, number of buildings needed, turnover of building usage, chemicals used, and waste by-products generated. Some of the products listed below were produced in small quantities on an as-needed basis, while others were mass-produced as a result of large defense contracts. Other products remained in research and development stages.

Ammunition Rounds - These are small caliber cannon shells (also called cartridges). Each cartridge is made of a head, a casing, and the propellant. The cartridges, mostly in the 20-millimeter (mm) and 30-mm sizes, were loaded with gun propellant and assembled at the Bermite facility.

Detonators, Fuses, and Booster - These are devices that initiate the main charge of an explosive. They contain small amounts of sensitive high explosive. When detonated by an electric or flame source, they send a shock wave into the main charge, causing it, in turn, to explode.

Flares and Signal Cartridges - These products provide a light, heat, or visual source. Military applications included infrared decoy flares, battlefield-illumination, smoke generators for signal cartridges, and training versions of missile and artillery main charges. Flares and signal cartridges were two of the primary products produced at the Bermite facility during recent history. Product lines in this category included the Mark 4 signal cartridge, and the W-9 and W-17 practice missile main charges (“dummies”).

Glow Plugs and Tracer and Pyrophoric Pellets - These are components of tracer bullets or shells, including the 23-mm tracer pellet.

Igniters, Ignition Compositions, and Explosive Bolts - Igniters and ignition compositions provide a source of high temperature flame to ignite the solid propellant in a rocket motor or a gas generator. Explosive bolts are used to quickly and positively separate individual components, such as is required in rocket staging. A major product line in this category was the igniter for the Mk 47 torpedo gas generator. Other products included the BP-1, Mk 125, and Mk 192 igniters.

Powder Charges - These products are non-military explosives used in oil field development. Products included the Baker #420 and Baker Oil Tool charges.

Rocket Motors and Gas Generator - Rocket motors are propulsion devices that use a burning solid propellant grain to generate thrust. Rocket motors were a major product line at the Bermite facility and included the JATO, Sidewinder, and Chaparral rocket motors. Gas generators are similar, but the combustion gases are used instead for guidance control or to spin turbines for power generation.

Missile Main Charge - The missile main charge is the high explosive component in a missile or artillery shell. The missile main charges for the Sidewinder and Chaparral missile were received prepackaged from an off-site source and assembled at the Bermite facility. The process of installing the initiating device (i.e., the detonator) into the missile main charge was conducted at the Bermite facility.

2.5 Permitting History

Whittaker first applied for a Resource Conservation and Recovery Act (RCRA) Part A permit for hazardous waste management units (HWMUs) in October 1980 and received interim status on September 25, 1981. A modified Part A application was submitted in 1984. A RCRA Part B permit application was submitted on February 21, 1986. Eventually 14 HWMUs were permitted.

Whittaker initially submitted three letters to DTSC in 1983 describing closure activities conducted at the HWMUs prior to approval of a closure plan. A final closure plan was approved by the U.S. Environmental Protection Agency (EPA) and the DTSC for the HWMUs in December 1987. Most of the environmental reports prepared prior to 1994 were associated with the investigation and cleanup activities for the fourteen HWMUs. Thirteen of the fourteen HWMUs have received closure certification acknowledgment from Cal-EPA. The remaining HWMU (also referenced as the OU6) is addressed in this document and is in process of closing.

The Bermite facility had a number of other permits when it was operating, including industrial wastewater discharge permits, hazardous waste control permits, flammable liquid storage permits, air permits, explosive receiving permits, explosive transport (hauler) permits, and flare testing and burn permits. These are highlighted in the following table:

**City and County Agencies Associated with
Former Bermite Facility**

Agency	Oversight Task
City of Santa Clarita - Building and Safety Department - Fire Department - Planning Department	Building, sewer, electrical, and grading permits
Los Angeles County Department of Public Works	Industrial wastewater, landfill, and underground storage tank permits
Los Angeles County Fire Department - Hazardous Materials Section - Petroleum and Chemical Unit (inspection and permitting) - Disclosure Section	General fire prevention: - Hazardous materials - Petroleum and chemical explosives permits - Archived files
Los Angeles County Sanitation District	Sewer hook-up (oversight by City of Santa Clarita)
South Coast Air Quality Management District	Air quality permits
California Department of Public Health, Radiation Management Division	Radioactive material permits

2.6 Regulatory Oversight and Preliminary Identification of Areas of Concern

During October 1993, in response to a request for information from DTSC, Whittaker submitted a report documenting operations and the potential release of hazardous materials for 64 areas at the Bermite facility in addition to the 14 RCRA units. Based on the data contained in the report, DTSC determined that further study was necessary in areas other than the HWMUs previously investigated to assess whether contaminated soil and groundwater posed a threat to public health and/or the environment. In November 1994, DTSC and Whittaker entered into a Consent Order requiring further investigation and possible remedial action. Exhibit 3 of the consent order lists 77 potential solid waste management units (SWMUs).

Santa Clarita LLC (SCLLC) entered a similar enforceable agreement with DTSC after taking over responsibility for Site cleanup in 1999 (Docket No. HAS-A 00/01-174). In November 2002, after it became apparent that SCLLC was not financially capable of complying with the consent order, DTSC issued a unilateral order to Whittaker to resume the Site investigation and remediation work (DTSC, 2002).

DTSC is the lead agency overseeing the soil and groundwater remediation program. The Los Angeles Regional Water Quality Control Board (RWQCB) and California Department of Fish and Game are involved with the oversight of the investigation and remediation of the Site drainages and seasonal streams. The RWQCB is the lead agency with respect to the permitting of any wastewater discharges associated with the cleanup of the Site. The South Coast Air Quality Management District is the lead agency with respect to the permitting of any remedial or investigation processes that result in the generation of regulated air pollutants.

Section 3

Physical Setting

This section describes the regional and local physical characteristics of the Bermite facility. The physical characteristics described below include land use, nearest primary public facilities, demographics, topography, climate, hydrology, geology, soils, hydrogeology, and ecosystem components.

3.1 Land Use

Land adjoining the southwestern boundary of the property has been developed in the last 10 to 15 years as a residential area. The land adjoining the eastern boundary of the Bermite facility is a business park. Soledad Canyon Road is adjacent to the northern portion of the property. Construction of Golden Valley Road along the eastern border of the Site was completed in 2002. The Saugus Speedway is located adjacent to and west of the commuter rail station and is currently used for swap meets. The remainder of the adjoining land is currently undeveloped.

3.2 Nearest Primary Public Facilities

School, child care, hospital, and retirement home facilities within an approximate five mile radius of the Bermite facility were identified by review of the Los Angeles County Assessor's records, map directories, and a reconnaissance of the local area. Identified facility names, owners, and addresses are listed in Appendix B, Table B-1, along with their approximate distances and directions from the Bermite facility (Figure 3-1). The facilities are grouped in the table as follow: those located less than 0.5 mile, those located between 0.5 and one mile, and those located more than one mile from the Bermite facility boundary.

School, child care, hospital, and retirement home facilities (sensitive receptors) within an approximate two mile radius of the Bermite facility were identified by review of Los Angeles County Assessor's records, maps, telephone and business directories, and a reconnaissance of the local area. There are 45 such sensitive receptors located within a two-mile radius of the Bermite facility. Creative Years Nursery School, North Valley Christian School, Notre Dame Infant Center & Preschool, Tutor Time Child Care/Learning Center, and Golden Valley High School are the only sensitive receptors located within approximately 0.5 mile of the Bermite facility. Henry Mayo Newhall Memorial Hospital is located approximately 1.1 mile from the former Whittaker Bermite facility.

3.3 Demographics

Santa Clarita Valley, which covers approximately 400 square miles, is located in northern Los Angeles County approximately 35 miles northwest of downtown Los Angeles. The city of Santa Clarita includes the communities of Saugus, Canyon County, Newhall, and Valencia, occupying approximately 40 square miles. The remaining 360 square miles of the valley consists of unincorporated areas to the

southwest, the San Gabriel Mountains to the southeast, and the Sierra Pelona Range to the north. According to information obtained from the City of Santa Clarita and the Los Angeles Almanac™, Santa Clarita is the fourth largest city in Los Angeles County with a population of 177, 158, as of January 2007. The average age of the population is 35 years and approximately 38 percent of the population is less than 25 years in age, approximately 54 percent is between 25 and 65 years in age, and the remaining eight percent is older than 65. The median household income is approximately \$67,000 and the majority of the Santa Clarita workforce (79 percent) is distributed among the services sector (48 percent), manufacturing (13 percent), finance, insurance, and real estate (nine percent), wholesale/retail trade (nine percent). More than 69 percent of the populace of Santa Clarita Valley is classified as non-Hispanic white, more than 27 percent is classified as Hispanic, with the remaining four percent classified as Asian, Black, or other race.

Santa Clarita Valley presently has a diverse economy, including health care, automobile, entertainment, education, and other services (42 percent); retail and wholesale trade (28 percent); finance, insurance, and real estate (11 percent); construction (eight percent); manufacturing (five percent); transportation and communications (three percent); public administration (one percent); and other (two percent). Major employers with at least 500 employees in the valley include Six Flags California, an amusement park (>3,800 employees); Saugus Unified School District (>2,000 employees); William S. Hart Union School District (>2,000 employees); Princess Cruises (>1,800 employees); U.S. Postal Service (>1,700 employees); College of the Canyons (>1,400 employees); Henry Mayo Newhall Memorial Hospital (>1,300 employees); Newhall School District (>800 employees); The Master's College (>700 employees); Specialty Laboratories (>700 employees); H.R. Textron, an aerospace manufacturer (> 600 employees); City of Santa Clarita (>600 employees); California Institute of the Arts (>500 employees); Arvato Services (>500 employees).

3.4 Topography and Hydrology

Site topography consists of steep hillsides with intermittent streams and deep canyons. Ridges trend northeast and southwest, but many ridges and canyons also trend north-northeasterly or south-southwesterly from the main ridge (Knight Piésold, 2003).

The Site was previously divided by AME into 12 hydrologic basins (I through XII), which drain from the Site onto surrounding properties (AME, 1995) (Figure 3-2). The major feature that affects ephemeral surface water run-off is a topographic ridge that extends across the Site from the northwest to southeast, approximately parallel to and west of the San Gabriel Fault. The hydrologic basins at the Site are defined in part by this topographic ridge, which forms a surface water divide. Eight of the hydrologic basins (I through VII, and XII) drain to the west and south of this surface water divide, and the remaining hydrologic basins (VIII through XI) drain to the east and north (ENVIRON, 2004).

OUs 1A, 1B, and 1C are located in the easternmost portion of OU1 and include the upper ridges and drainages of Hydrologic Unit XI. The maximum ground surface elevation along the ridges in OU1A, OU1B, and OU1C is approximately 1,734 feet relative to mean sea level (MSL). The minimum ground surface elevation at the base of the canyon at the northern border of the Site is on the order of 1,416 feet MSL. The drainage basins along the east and northeast boundaries of OU1A, OU1B, and OU1C comprise fingers of a north/south branching arm of Soledad Canyon. Golden Valley Road was completed in 2002 by placing up to 70 feet of compacted fill across the eastern portions of these drainages in a north/south direction for approximately 1,500 feet (GeoSoils, 2000).

OU1Dn is located in the northwestern portion of OU1 and includes the upper ridges and drainages of Hydrologic Unit X. The maximum ground surface elevation along the ridges in OU1Dn is approximately 1,702 feet relative to MSL. The minimum ground surface elevation at the base of the canyon at the northern border of the Site is on the order of 1,342 feet MSL.

OU1Ds is located in the southeastern portion of OU1 and includes the upper ridges and drainages of Hydrologic Unit X (Oro Fino Canyon). The maximum ground surface elevation along the ridges in OU1Ds is approximately 1,635 feet relative to MSL. The minimum ground surface elevation at the base of the canyon at the southern border of the Site is on the order of 1,402 feet MSL.

OU1E is located in the central portion of OU1 and includes the upper ridges and drainages of Hydrologic Units VI and XI. The maximum ground surface elevation along the ridges in OU1E is approximately 1,675 feet relative to MSL. The minimum ground surface elevation in eastern portion of OU1E is on the order of 1,526 feet MSL.

OU2/OU6 is located in the south-central portion of the Site and includes the upper ridges and drainages of Hydrologic Units VI and XII. The maximum ground surface elevation along the ridges in OU2 is approximately 1,745 feet relative to MSL. The minimum ground surface elevation at the base of the canyon at the southern border of the Site is on the order of 1,340 feet MSL. OU6 is the one remaining RCRA unit that is situated within the OU2 area.

OU3 is located in the central portion of the Site and includes the upper ridges and drainages of Hydrologic Units IV and V (Oakdale Canyon). The maximum ground surface elevation along the ridges in OU3 is on the order of 1,740 feet MSL. The minimum ground surface elevation at the base of the canyon at the western border of the Site is on the order of 1,430 feet MSL.

OU4 is located in the north-western portion of the Site and includes the upper ridges and drainages of Hydrologic Units I through IV. The maximum ground surface elevation along the ridges in OU4 is on the order of 1,440 feet MSL. The minimum ground surface elevation at the base of the canyon at the western border of the Site is on the order of 1,270 feet MSL.

OU5 is located in the northern portion of the Site and includes the upper ridges and drainages of Hydrologic Units (VIII through XI). The maximum ground surface elevation along the ridges in OU5 is on the order of 1,660 feet MSL. The minimum ground surface elevation at the base of the canyon at the northern border of the Site is on the order of 1,200 feet MSL.

Figure 1-1 shows the location of the Site, and Figure 1-2 depicts the location of the operable units within the Site.

3.5 Geology

The mapped surficial geology at the Site (Figure 3-3) is reproduced from reports by Pacific Soil (Pacific Soil, 1990 and 1993). The mapped geologic units of the Site include artificial fill (af), landslide deposits (Qls), colluvium (Qcol), and recent alluvium (Qal); alluvium that is indistinguishable from artificial fill (af/Qal); Terrace Deposits (Qt); the Pacoima Formation (also referred to as older Terrace Deposits) (Qp); and the Saugus Formation (Qt). The fill materials alluvium, colluvium, and terrace deposits, where present, are underlain by the Saugus Formation.

The Newhall Section of the San Gabriel Fault (Figure 3-3) passes through the northern and central portions of the Site. The San Gabriel Fault trends approximately north 65 degrees west through the property and has resulted in deformation of the local geologic formations. The majority of the Site is located south of the fault, except for portions of OU1, OU3, and OU5. Bedding north of the fault dips from approximately 20 to 55 degrees to the southwest and increases up to approximately 80 degrees within the fault zone. Flat-lying to gently dipping beds of the Pacoima Formation (also known as older Terrace deposits) are prevalent in OU1Ds south of the fault zone (Pacific Soil, 1990 and 1993). Near the fault, dips of the Pacoima Formation gradually increase from flat-lying to about 20 to 35 degrees southwest.

The following descriptions of surficial geologic units are from Pacific Soil (1990, 1993) and have been updated with information from a recent draft report by GeoSoils, Inc. (GeoSoils, 2000). Information for subsurface geology is taken from various sources, as referenced below.

Artificial Fill (af) - These old fills are mostly associated with past human activities related to grading of old building pads and access roads. Some of the fills may also be associated with construction of the L.A. Aqueduct (GeoSoils, 2000).

af/Qal - Alluvium (Qal) that is indistinguishable from artificial fill (af).

Landslide Deposits (Qls) - Landslide deposits mapped on Figure 3-2 range from slides that involve Saugus Formation bedrock to surface failures or mudflows that typically involve topsoil and slope wash (GeoSoils, 2000).

Alluvium (Qal) - The Santa Clara River system continues to deposit sand and gravel mapped as Quaternary Alluvium of Holocene or Recent Age. Holocene alluvium is characterized by sand, gravel, and boulders of the current channels of the Santa Clara River, generally reducing to sandy and silty floodplain deposits toward the edges of the river valley (Dibblee, 1996). These alluvial deposits are up to approximately 200 feet thick in the Santa Clara River Valley, somewhat thinner in major tributary canyons such as Bouquet Canyon, and up to 75 to 125 feet thick in the floors of other tributary canyons (Slade, 1986).

Colluvium (Qcol) - The term colluvium refers to thicker deposits of topsoil which usually accumulate in swales and near the toes of slopes in response to rain wash, slope creep, and mass wasting (GeoSoils, 2000). Colluvium is present on many slopes in OU1, and merges with the mapped alluvium in drainage bottoms (Figure 3-2). Topsoil on the Site develops through the weathering and decomposition of the underlying bedrock which weathers to a silty, sandy topsoil with gravel and cobbles (GeoSoils, 2000)

Terrace Deposits (Qt) - Following deposition of the underlying Saugus Formation, renewed uplift of the local portion of the Transverse Ranges in the middle Pleistocene resulted in the establishment of the Santa Clara River drainage system in roughly its current configuration (Oakeshott, 1958; Winterer and Durham, 1962). This uplift and dissection of Saugus and older deposits resulted in the deposition of alluvial conglomerate and gravels over a broader area at somewhat gentler gradients than along the current Santa Clara River Valley. In the vicinity of the Site, these alluvial deposits have been variably mapped as "Older Dissected Surficial Sediments" of probable late Pleistocene age (Dibblee, 1996), late Pleistocene Terrace Deposits (Yerkes and Campbell, 1995; Winterer and Durham, 1962), and Pleistocene Pacoima Formation (Pacific Soil, 1993). Terrace deposits in the vicinity of the San Gabriel Fault are not likely to exceed 200 feet in thickness (Dibblee, 1996), but may thicken to as much as 400 feet on the east side of the Site towards the town of Saugus (Dibblee, 1996). The terrace deposits are found on the hill in OU2 at the highest elevation of the Site, approximately 1,730 ft MSL, approximately 500 feet above the current floodplain of the Santa Clara River.

Pacoima Formation (Qp) - Older consolidated terrace deposits of probable Pleistocene age have been mapped south of the San Gabriel Fault zone (GeoSoils, 2000). These deposits were correlated by Pacific Soil (1993) with gravels and boulders of Middle Pleistocene age known as the Pacoima Formation (Oakeshott, 1958). However, more recent mapping (Yerkes and Cambell, 1995) assigns a late Pleistocene age to the Pacoima Formation. The mapped Pacoima Formation/older terrace deposits on the Site consist of predominantly conglomeratic sandstone that is well indurated. The deposits contain abundant one- to two-foot-diameter rounded boulders, which appear to have been derived from crystalline granitic basement rocks of the San Gabriel Mountains exposed several miles east of the Site.

Saugus Formation (TQs) - The Saugus Formation is interpreted as floodplain deposits inter-fingered with alluvial fan deposits (Trieman, 1986). Subsequent faulting and folding in the region has caused the sedimentary rock of the Saugus Formation to form a bowl shaped structure that is bisected by the San Gabriel Fault. The Saugus Formation is of Pleistocene age (Yerkes and Cambell, 1995), extends to a maximum thickness of about 7,000 feet, and is underlain by the Pico Formation (Dibblee, 1996). In the Site vicinity, the Saugus Formation ranges in thickness from 2,100 to 2,500 feet to the northeast of the fault, and from 3,800 to 5,000 feet to the southwest of the fault and occupies a local depression.

Locally, Saugus Formation consists of light gray-white to brown arkosic sandstone and pebble conglomerate with finer grained reddish siltstone and mudstone interbeds referred to as “red beds”. Sediments range from moderately well bedded to massive. The sandstone beds are thicker than the red beds and range from several feet to several tens of feet in thickness. Red beds are generally only a few feet in thickness but are occasionally 10 to 15 feet thick and consist of mudstone, siltstone, and claystone. The sandstone beds represent fluvial (stream) deposits, and some of the red beds appear to be old buried paleosols (ancient soil deposits). Other finer grained silt beds may represent ancient over-bank flood deposits (GeoSoils, 2000).

3.6 Soil

3.6.1 Soil Types

An overview of the soil present at the Bermite facility was derived from the “Report and General Soil Map, Los Angeles County, California” dated June 1967 (revised 1969) and prepared by SCS (1969). According to this report, soil at the Bermite facility is composed of two associations (types) of Group III soil (soil of the uplands). The two soil associations mapped at the facility are separated along a northwest-southeast trend that apparently corresponds to the trend of the main ridgeline at the facility.

The southwest portion of the Bermite facility is mapped as having soil of the Agua Dulce-Ojai association (#31), which generally occurs on steep foothills with 30 to 50 percent slopes. The northeast portion of the facility is mapped as having eroded soil of the Balcom-Castatic-Saugus association (#40), which generally occurs on steep mountains with 30 to 50 percent slopes. These soil associations are characterized by having rain runoff, high erosion hazard, moderately slow to moderate subsoil permeability, low to moderate inherent fertility, and good drainage (SCS, 1969). They are used for range, wildlife habitat, and watershed.

Additional soil information was obtained from the “Soil Survey, Antelope Valley Area, California” (SCS, 1970). According to this report, soil at the Bermite facility is composed of seven units (OgC, OgF, HcC, YoC, ScF, and ScF2). The seven units are grouped into three units of the Ojai series to the southwest of the main ridge line at the facility, and into the Hanford, Yolo, and two units of the Saugus series to the northeast of the ridge line. Characteristics of the seven soil units are described below.

Soil of the Ojai series is well-drained loam that occurs on terraces and foothills and is mostly used for range, wildlife habitat, watershed, and residential development. Slopes with soil of the Ojai series range from two to nine percent (unit OgC) with associated moderately slow permeability, slow to medium runoff, and slight to moderate erosion hazard, 15 to 30 percent (unit OgE) with associated medium to rapid runoff, moderate to high erosion potential, and localized areas of moderate sheet and rill erosion, and 30 to 50 percent (unit OgF) with associated rapid runoff, high erosion.

3.6.2 Background Chemical Concentrations in Soil

A soil background chemical data file was previously established for the Site by AME in 1997. The background study included: 1) identification of soil types, soil strata, and hydrologic features at the Site; 2) selection of sampling locations in each soil type area; 3) determination of a statistically acceptable sample size; 4) evaluation of summary statistics and potential outliers within each soil type; 5) statistical evaluation of the potential for combining data from different soil types; and 6) creation of a master background data set that is representative of the entire Site. The results of the study was the development of a single background data set, considered representative of background for all soil types at the Site (AME, 1997). A summary table of the background analysis results for inorganic compounds is presented in Appendix C.

3.6.3 Soil Physical Parameters

The physical characteristics of the soil at the Bermite facility are discussed briefly in this section. The information presented has been obtained from soil physical parameter tests performed by AME in support of feasibility study and risk assessment activities at the Site. The physical parameter tests included: porosity, permeability, wet bulk density, total organic carbon (TOC), and grain size distribution. In addition to the work performed by AME, PSE conducted soil testing as part of a feasibility study for future development. A total of 75 auger borings were advanced to collect soil samples for the following physical parameter tests: maximum dry density, optimum moisture content, grain size, remolded and undisturbed shear strength, expansive soil characteristics, and consolidation determinations. The results of PSE's investigation are contained in the report entitled "Geotechnical Feasibility Report Bermite Property" dated May 28, 1990 (PSE, 1990).

Soil samples were collected by AME for physical parameter analyses from Areas 11, 14, and 55, at depths ranging between 6 and 155 feet. The porosity of the soil samples analyzed ranged between 20.7 and 46 percent. The average porosity reported was 35.5 percent. The permeability of the soil samples analyzed ranged between 9.99E-05 and 2.20E-08 centimeters per second (cm/sec), and the wet bulk density ranged between 1.42 and 2.1 grams per cubic centimeter (g/cm³). The TOC content of the soil samples analyzed varied between less than 50 to 6,100 milligrams per kilogram (mg/kg). The grain size distribution of four soil samples analyzed indicated that the predominant particle size (approximately 83 to 89 percent by weight) is in the sand

range. The percentage of fine-grained material ranged between approximately 6 and 12 percent, and coarse-grained gravels varied between zero and eight percent.

The results of chemical analyses performed on soil samples collected at the Bermite facility were reported on a dry-weight basis. As such, the percent moisture for each sample submitted for chemical analyses was determined by the laboratory. The percentage of moisture for all soil samples submitted for chemical analyses (over 1,000 soil samples) ranged between 0.90 and 61 percent. The average percent moisture was 9.62.

3.7 Hydrogeology

There are two regional aquifers in the vicinity of the Site: the Alluvial Aquifer and the Saugus Aquifer. The terrace deposits that overlie the Saugus Aquifer southwest of the San Gabriel Fault are typically unsaturated. Perched groundwater is encountered in some areas of the elevated inland portions of the Site, most commonly at the contact between the terrace deposits and the Saugus Formation. Perched water also occurs locally at or beneath contacts of fills with underlying formations.

3.7.1 Alluvial Aquifer

The Alluvial Aquifer is associated with the Santa Clara River system including its main channels and tributaries. The main river channel runs east to west down the middle of Soledad Canyon just beyond the Site's northern boundary. The south fork runs south to north just beyond the Site's western boundary. To the north of the Site, the river valley deposits are approximately a half-mile in width. To the west of the Site, the river channel deposits are approximately a mile wide across Bouquet Canyon. The depth of the alluvial deposits in the immediate Site vicinity are currently unknown but are assumed to be approximately 200 feet deep below the center of the river channel. The alluvium typically thins or pinches out near the flanks of the adjoining hills. At the base of the tributary canyons that form the Site's principal drainages, alluvial deposits in the bottom of the tributary drainages interfinger with sediments deposited in the main river channel.

Near the main river channel to the north of the Site, alluvial groundwater elevations at MW-75-5 (casing elevation of 1,217 feet MSL) measured since 1997 have ranged from about 11 to 60 feet in depth (1,205 to 1,158 feet relative to mean sea level [MSL]) with a westerly gradient. As of April 2006, the depth-to-groundwater at MW-75-5 was approximately 13 feet. To the west of the Site, alluvial groundwater depths at wells AL-3 (casing elevation of 1,194 feet MSL) and AL-6 (casing elevation of 1,170 feet MSL) were at approximately 85 and 60 feet (approximately 1,109 and 1110 feet MSL) respectively in October 2005 with an overall northerly gradient (CH2M Hill, 2005). In general, the direction of alluvial groundwater flow corresponds to the flow of the river and its tributaries. There is an area of converging groundwater flows where the south fork of the Santa Clara River discharges into the main river channel near Bouquet Junction.

The alluvial water table is recharged primarily by surface water runoff. To the north of the Site, however, the upper intervals of the Saugus Aquifer discharge into the alluvial basin. To the west of the Site and south of the fault, the alluvial groundwater table recharges the upper water-bearing intervals of the underlying Saugus Aquifer.

3.7.2 Saugus Aquifer

The regional Saugus Aquifer is present throughout the Site and vicinity and underlies the Alluvial Aquifer under the northern areas of the Site. The Saugus Aquifer consists of a series of discrete leaky water-bearing zones that occupy the more permeable intervals (sandstones and conglomerate) of the Saugus Formation, typically under confined to semi-confined conditions. Recent subsurface investigations in the Site vicinity indicate that the confining beds generally dip roughly 20 degrees to the northwest.

Within the Site boundaries, the San Gabriel Fault is interpreted to create a hydraulic boundary or barrier within the Saugus Aquifer. South of the San Gabriel Fault in the elevated interior areas of the Site where the Saugus Aquifer is overlain by terrace deposits, depth-to-groundwater at well MW-1 (casing elevation of 1,561 feet MSL) has ranged from approximately 460 to 520 feet (about 1,040 to 1,100 feet MSL) and is currently at about 463.77 feet (1,097.55 feet MSL) (Knight Piésold, 2007). In this portion of the Saugus Aquifer the overall gradient is believed to be to the northwest, but is locally influenced by the San Gabriel Fault zone and a fairly extensive network of groundwater production wells to the north and west of the Site.

North of the fault where the Saugus Formation is generally exposed, the potentiometric surface of the Saugus Aquifer is about 130 to 200 feet higher. At well 21-MW-1, groundwater in what is believed to be the regional Saugus Aquifer was measured at approximately 60 feet (1,375 feet MSL) in 2006 (ENVIRON, 2007a). At well MP-3, groundwater in the Saugus Formation was measured at depths ranging from 60 to 125 feet (1,262 to 1,326 feet MSL) (CH2M Hill, 2003). In this portion of the Saugus Aquifer the overall gradient and direction of flow are currently under investigation (ENVIRON, 2007a).

The most prominent area of recharge of the Saugus Aquifer in the Site vicinity is south of the fault where the Saugus is recharged by infiltration from the Alluvial Aquifer along the Santa Clara River and its tributaries. It is assumed that there is relatively little direct recharge from surface water infiltration in the elevated interior portions of the Site due to the combined effects of the relatively great depth to water (400 to 500 feet), the steep slopes, and the relatively low levels of annual precipitation (approximately 15 inches).

3.7.3 Perched Groundwater

Perched water has been encountered in the inland areas of the Site during past and recent remedial investigations of OU1, OU2 and OU3 (ENVIRON, 2007a). The occurrence and extent of perched water at the Site is highly variable and discontinuous.

In general, the perched water in OU1Ds (Area 26), OU2 and OU3 has recently been recognized to occur at depths ranging from approximately 125 to 200 feet (approximately 1,350 to 1,400 feet MSL) at the interface of the terrace deposits and underlying Saugus Formation (ENVIRON, 2007a), and in the uppermost Saugus formation (OU3).

Perched water has also been found in OU3 (Area 17) and OU1E (Area 55). In Area 17 the perched water was found at approximately 1,500 to 1,520 ft MSL (AME, 1997a), and is expected to occur within or at the base of landfill materials. In Area 55 the perched water was found at approximately 1,565 ft MSL within the mapped main trace of the San Gabriel Fault zone. The Area 55 perched water has been interpreted to be associated with the contact between fill and underlying Saugus Formation (AME, 1997a). An alternative explanation is trapping of water within a localized zone in the upper Saugus Formation where steeply dipping beds intersect the fault.

3.8 Ecosystem Components and Characteristics

This section describes the ecosystem components and characteristics in the vicinity of the Bermite facility. A biological constraints survey was conducted at the Bermite facility by Bonterra Consulting (Bonterra) in 2006 (Bonterra, 2006). The following sections are excerpts from the Bonterra report, which is included as Appendix D.

3.8.1 Vegetation

The Site is dominated by coastal scrub and chamise chaparral. Other vegetation types present include holly-leaf cherry, California annual grassland, southern cottonwood-willow riparian, mule fat scrub, Mexican elderberry, and coast live oak. Areas of unvegetated wash and developed, disturbed, and ornamental areas are also present. All vegetation types and other areas present on the Site are shown in Appendix D, Exhibit 3-1 and described below. Detailed vegetation maps are shown in Appendix D, Exhibits 3-2 to 3-8.

3.8.1.1 Scrub and Chaparral Vegetation Types

Coastal scrub is present across the Site, which is dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), purple sage (*Salvia leucophylla*), black sage (*Salvia mellifera*), and deerweed (*Lotus scoparius*). Other species present include Mexican elderberry (*Sambucus mexicana*), thick-leaf yerba santa (*Eriodictyon crassifolium*), and great basin sagebrush (*Artemisia tridentata*).

Chamise chaparral is also present across the Site, which is dominated by chamise (*Adenostoma fasciculatum*). This vegetation type is co-dominated in many areas by black sage, in a few areas by hoaryleaf ceanothus (*Ceanothus crassifolius*), and in one small area near the western Site boundary by scrub oak (*Quercus berberidifolia*). Other species present include the coastal scrub species mentioned above, along with mountain mahogany (*Cercocarpus betuloides*), toyon (*Heteromeles arbutifolia*), laurel sumac (*Malosma laurina*), and everlasting (*Gnaphalium* sp.). Both the coastal scrub and chamise chaparral vegetation types have a patchy distribution across the Site, and intergrade to a great extent with each other and with the other vegetation types listed below.

Holly-leaf cherry is present mainly along an east-west trending drainage in the central portion of the Site. This vegetation type is dominated by holly-leaf cherry (*Prunus ilicifolia*). Other species present include thick-leaf yerba santa, California sagebrush, Mexican elderberry, mountain mahogany, and everlasting.

3.8.1.2 Grass- and Herb-Dominated Vegetation Types

California annual grassland is present mainly in the southeastern portion of the Site, but also occupies small patches throughout the Site. It is dominated by a mixture of non-native grassland species, including wild oats (*Avena* spp.), foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), tocalote (*Centaurea melitensis*), black mustard (*Brassica nigra*), and shortpod mustard (*Hirschfeldia incana*). Weedy native species also found scattered throughout this vegetation type include telegraph weed (*Heterotheca grandiflora*), doveweed (*Eremocarpus setigerus*), California aster (*Lessingia filaginifolia*), and annual bursage (*Ambrosia acanthicarpa*).

3.8.1.3 Riparian and Bottomland Habitat Vegetation Types

Southern cottonwood-willow riparian is present in scattered drainage bottoms throughout the Site. It is dominated by Fremont cottonwood (*Populus fremontii*) and red willow (*Salix laevigata*). Other species present include Mexican elderberry, holly-leaf cherry, and mule fat (*Baccharis salicifolia*).

Mule fat scrub is also present in scattered drainage bottoms throughout the Site. It is dominated by mule fat. Other species present include sacapellote (*Acourtia microcephala*) and California sagebrush.

Mexican elderberry is found on the Site in scattered drainage bottoms and low flat areas and is dominated by Mexican elderberry. Other species present include giant wild rye (*Leymus condensatus*), sacapellote, annual bursage, mule fat, toyon, and holly-leaf cherry.

Unvegetated wash is found in drainage bottoms generally devoid of vegetation, possibly due to scouring during storm events, but may occasionally support riparian species such as mule fat.

3.8.1.4 Broad-Leafed Upland Tree-Dominated Vegetation Types

Coast live oak is present in small patches throughout the Site and is dominated by coast live oak (*Quercus agrifolia*), although an occasional valley oak (*Quercus lobata*) is present in the extreme western portion of the Site. Other species present include toyon, holly-leaf cherry, Mexican elderberry, and groundsel (*Senecio flaccidus*).

3.8.1.5 Other Areas

Developed areas on the Site include all paved areas and structures, including the Santa Clarita Metro Link Station and approximately 20 buildings near the Site entrance referred to as the Lower Compound. Disturbed areas on the Site include dirt roads, fire breaks, and other mechanically disturbed areas that are generally devoid of vegetation. An ornamental area is present within Parcel 1 in the northern portion of the Site, adjacent to developed areas, and consists of a landscaped planting of non-native acacia (*Acacia* sp.).

3.8.2 Wildlife Habitat

The Site provides moderate to high quality habitat for wildlife species. A wide variety of common wildlife species have been observed on the Site during previous and current biological surveys and construction monitoring undertaken by BonTerra Consulting.

Common amphibian species observed on the Site during biological surveys and construction monitoring include western toad (*Bufo boreas*), Pacific treefrog (*Pseudacris* [*Hyla*] *regilla*), and California tree frog (*Pseudacris* [*Hyla*] *cadaverina*). Common reptile species observed on the Site during biological surveys and construction monitoring include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria multicarinata*), coachwhip (*Masticophis flagellum*), common kingsnake (*Lampropeltis getula*), California whipsnake (*Masticophis lateralis*), gopher snake (*Pituophis catenifer*), and western rattlesnake (*Crotalus oreganus*).

Some common bird species observed on the Site during biological surveys and construction monitoring include turkey vulture (*Cathartes aura*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), mourning dove (*Zenaidura macroura*), greater roadrunner (*Geococcyx californianus*), great horned owl (*Bubo virginianus*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), western kingbird (*Tyrannus verticalis*), western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), northern rough-winged swallow (*Stelgidopteryx serripennis*), bushtit (*Psaltirparus minimus*), Bewick's wren (*Thryomanes bewickii*), house wren (*Troglodytes aedon*), blue-gray gnatcatcher (*Polioptila caerulea*), wrentit (*Chamaea fasciata*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), yellow-rumped warbler (*Dendroica coronata*), spotted towhee

(*Pipilo maculatus*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), western meadowlark (*Sturnella neglecta*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), and house sparrow (*Passer domesticus*).

Several buildings on the Site have entrances available to bats and owls, and many buildings have attics with holes in the ceiling that would allow for bat and owl occupation. Owl casts are abundant on some floors, indicating that roosting and probably nesting occurs in some buildings. Barn owls (*Tyto alba*) were observed during the current survey, as was a historic and recently active raven nest within an abandoned building.

Some common mammal species observed on the Site during biological surveys and construction monitoring include Audubon's (desert) cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), Pacific kangaroo rat (*Dipodomys agilis*), California pocket mouse (*Perognathus californicus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), and mule deer (*Odocoileus hemionus*).

3.8.3 Special Status Vegetation Types

Special status vegetation types are considered to be "depleted" habitats by the CDFG and other resource agencies. They are typically protected by ordinance, code, or regulation under which conformance typically requires a permit or other discretionary action prior to impacting the habitat. Several special status vegetation types occur on the Site: holly-leaf cherry, coast live oak, southern cottonwood-willow riparian, mule fat scrub, Mexican elderberry, and, to a limited extent, unvegetated wash. In addition, coastal sage scrub covers many areas of the Site and is considered a special status vegetation type because of its limited distribution in southern California and its potential to support special status plant and wildlife species.

Oak trees identified on the Site include scrub oak, coast live oak, and valley oak. The oak trees on the Site are subject to the Los Angeles County Oak Tree Ordinance Section 22.56.2060. Oak trees are also protected under the City of Santa Clarita's Ordinance No. 89-10, called the "City of Santa Clarita Oak Tree Preservation Ordinance."

3.8.4 Special Status Plant and Wildlife Species

Plants or wildlife may be considered to have "special status" due to declining populations, vulnerability to habitat change, or restricted distributions. Certain special status species have been listed as threatened or endangered under state and/or federal Endangered Species Acts (ESAs).

3.8.4.1 Special Status Plants

Fourteen special status plants are known to occur in the vicinity of the Site. Of these, seven are not expected to occur on the Site due to lack of suitable habitat. Three plant species that are federally and/or state-listed as endangered have the potential to occur on the Site. These species are Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), and San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*). These species are described further below.

Braunton's Milk-Vetch

Braunton's milk-vetch is a federally listed endangered species. This stout perennial typically blooms from February to June and occurs in brushy places and along firebreaks, typically in chaparral, at elevations below approximately 1,500 feet above msl. This species is associated with disturbed areas. It also occurs in closed-cone coniferous forest, coastal scrub, and valley and foothill grassland, especially in areas with recent burns or disturbance. This species is known from Ventura, Los Angeles, Riverside, and Orange counties.

Nevin's Barberry

Nevin's barberry is a federally and state-listed endangered species. It typically blooms in March and April. This large perennial shrub grows in sandy and gravelly places in sage scrub and chaparral habitats in Los Angeles County. In the project vicinity, this species has been observed in San Francisco Canyon.

San Fernando Valley Spineflower

San Fernando Valley spineflower is a federally listed Candidate and state-listed endangered species. This annual herb typically blooms between April and June. It is found in dry sandy places below approximately 2,500 feet above msl, mostly in coastal sage scrub. This species was historically known from the San Fernando Valley, Newhall, Castaic, and Elizabeth Lake areas and was presumed extinct until it was rediscovered at Ahmanson Ranch in Ventura County in 1999. In the project vicinity, this species has been reported at the Magic Mountain Entertainment Site, south of the Santa Clara River and west of Interstate-5, and at Newhall Ranch.

In addition, several other plant species considered special status by the CNPS have the potential to occur on the Site. These include slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*). Slender mariposa lily was observed on the Site during focused plant surveys performed in designated areas within Operable Unit 1 during spring 2006. These plant species are considered CNPS List 1B or 2 species, which indicates that they are considered rare, threatened, or endangered within California by the CNPS.

3.8.4.2 Special Status Wildlife

Several special status wildlife species are known to occur in the vicinity of the Site; however, only threatened or endangered species typically present constraints to development. Eight federally or state-listed threatened or endangered species are known to occur in the project region and include: Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), mountain yellow-legged frog (*Rana mucosa*), arroyo toad (*Bufo californicus*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and coastal California gnatcatcher (*Polioptila californica californica*). Only the least Bell's vireo and California gnatcatcher have the potential to occur on the Site. The other species are not expected to occur on the Site due to lack of suitable habitat. The species with a potential to occur on the Site are described further below.

Least Bell's Vireo

Least Bell's vireo is a federally and state-listed Endangered species. A small amount of marginally suitable foraging and nesting habitat occurs within the "OU1D South" drainage in the southeastern portion of the Site.

On February 2, 1994, U.S. Fish and Wildlife Service (USFWS) published the final critical habitat designation for the least Bell's vireo designating approximately 37,560 acres of land in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties in California. The Site is not located within the designated critical habitat area for this species.

Coastal California Gnatcatcher

The coastal California gnatcatcher (gnatcatcher) is a federally listed Threatened songbird, and is a State of California Species of Special Concern. This species occurs within various associations of sage scrub vegetation, and surrounding low density chaparral. In referring to a data set provided by the USFWS that pinpoints gnatcatchers within the general region of the Site, these data show recent records of the species as close as a mile and a quarter east of the Site border .

On October 24, 2000, the USFWS published a final rule designating 513,650 acres of land as critical habitat for the coastal California gnatcatcher in the Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties in California. Following the designation of critical habitat, several lawsuits were filed challenging various aspects of the designation. In response to these lawsuits, the critical habitat designation was vacated and the USFWS was instructed by the court to re-evaluate its previous position. A new proposed critical habitat designation was published on April 24, 2003, covering 495,795 acres. However, as of this date, this proposed rule has not been finalized; therefore, the October 24, 2000, final rule remains in effect. The Site is located outside and west of areas designated under both the (previous) final and (new) proposed critical habitat designation.

Special status wildlife species that have been observed on the Site during previous biological surveys or construction monitoring by BonTerra Consulting include the western spadefoot (*Spea hammondi*), coastal western whiptail (*Aspidoscelis [Cnemidophorus] tigris stejnegeri*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), rufous hummingbird (*Selasphorus rufus*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Dendroica petechia*), rufous-crowned sparrow (*Aimophila ruficeps*), Bell's sage sparrow (*Amphispiza belli*), Lawrence's goldfinch (*Carduelis lawrencei*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*). None of these species are listed as Threatened or Endangered. However, the presence of these species may be considered constraints per Section 15380 of CEQA.

Section 4

Summary of Remedial Investigations

This section provides a brief summary of the RIs conducted for OUs 2 through 6. The scope of the RIs expanded upon the findings of the historic investigations and was generally consistent with the historic findings; however, certain findings of the RI activities were inconsistent with historic investigations; and therefore, the RI activities needed to be further expanded. The historic investigations are not discussed herein, since their results are incorporated to the recent RI activities. Additionally, as the shallow soils for OU1 were already addressed in the OU1 FS, remedial action plan (RAP), and RD, only “deep” soil results of OU1 are discussed herein.

4.1 Chemical Impacts in Soils

The primary contaminants detected during the Site-wide RI are perchlorate and volatile organic compounds (VOCs) (primarily chlorinated hydrocarbons). As presented in the Site-wide RI report (CDM, 2006), the distribution and extent of perchlorate-impacted soil in the subsurface were illustrated in concentration contour maps developed for soils in the 0 to 40 feet depth range and soils in the 41 to 200 feet depth range. Those concentration contour maps are presented herein as Figures 4-1 and 4-2, respectively, for reference purposes. The contour intervals for perchlorate concentrations, which were selected based on preliminary risk-threshold concentrations, were set at 20 (detection limit), 500, 5,000, and 28,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$).

Similarly, as presented in the Site-wide RI report, the distribution and extent of VOC-impacted soil in the subsurface were illustrated in concentration contour maps for VOCs in soil gas for soils in the 0 to 40 feet depth range and soils in the 41 to 200 feet depth range. Those concentration contour maps are presented herein as Figures 4-3 and 4-4, respectively, for reference purposes. The soil-gas data was selected as the primary indicator to illustrate the distribution of VOCs in the subsurface, as soil-gas data is generally considered a better measure than soil-matrix data for evaluation of VOC-impacted soil, particularly within coarser-grained soils, such as those encountered at the Site. However, for areas where there was very little soil-gas data below 40 feet, soil-matrix data was used for contouring the 40 to 200 feet depth range. The contour intervals for VOCs concentrations were selected at 1; 10; 1,000; and 10,000 (micrograms per liter [$\mu\text{g}/\text{L}$] for soil gas and $\mu\text{g}/\text{kg}$ for soil matrix).

As stated by DTSC in their letter of approval of the Site-Wide RI, the nature and extent of chemical impacts to the soil at the Site have been adequately defined for the purposes of remedial evaluation and planning. However, in some areas and for some specific compounds, collection of additional data may be warranted in order to complete detailed remedial design plans. It is anticipated that any additional data needs will be addressed through the collection of pre-design data, performance monitoring and sampling during pilot studies or full-scale operations, and/or the collection and analysis of confirmation samples.

Summaries of the RI results, separated by OUs, are presented in the following sections.

4.1.1 OU1

Remediation of chemically impacted soils in OU1, for the most part, has been completed through SVE for VOCs and excavation and ex-situ enhanced bioremediation for perchlorate. SVE operations in certain areas of OU1 are still ongoing, but are expected to be completed in the near future. In the areas of perchlorate impact, soils were excavated to “practical depth of excavation” and treated. As previously mentioned, only the deep soils not addressed by the OU1 FS, RAP, and RD (depths greater than 40 feet, except Area 55, where excavation and treatment of impacted soils extended to greater than 70 feet due to the steep hill-side slope) are summarized herein:

- The results of the RI indicated that the deep soil in certain areas of OU1 has been impacted, primarily by perchlorate, and to a lesser degree, by VOCs.
- The areas with deep soil perchlorate impacts in OU1 include OU1E (Areas 7, 43, 55, and Building 329) and OU1Ds (Area 26). Area 7 had detectable concentrations of perchlorate extending to a least 110 feet, with the highest concentration (14,000 µg/kg) reported at 110 feet; Area 26 had detectable concentrations of perchlorate extending to at least 190 feet, with the highest concentration (14,000 µg/kg) reported at 65 feet.; Area 43 had detectable concentrations of perchlorate extending to at least 200 feet, with the highest concentration (510 µg/kg) reported at 200 feet; Area 55 had detectable concentrations of perchlorate extending to at least 85 feet, with the highest concentration (19,000 µg/kg) reported at 80 feet; Building 329 had detectable concentrations of perchlorate extending to at least 50 feet, with the highest concentration (1,400 µg/kg) reported at 50 feet. Additionally, one boring drilled in the roadway north of Area 55 (OU1A-DB-03) had detectable concentrations of perchlorate extending to at least 200 feet, with the highest concentration (4,200 µg/kg) reported at 170 feet.
- The areas with deep soil VOC impacts in OU1 include OU1E (Areas 7, 43, 55, and Building 329). Area 7 had detectable concentrations of trichloroethene (TCE) extending to 140 feet, with the highest concentration (1,800 µg/kg) reported at 110 feet; Area 43 had detectable concentrations of TCE, tetrachloroethene (PCE), and cis-1,2-dichloroethene (cis-1,2-DCE) extending to at least 200 feet, with the highest concentrations (TCE – 780 µg/kg; PCE – 6.3 µg/kg; cis-1,2-DCE – 6.8 µg/kg) all reported 200 feet; Area 55 had detectable concentrations of TCE extending to 110 feet, with the highest concentration (88 µg/kg) reported at 80 feet; Building 329 had detectable concentrations of TCE and PCE extending to at least 50 feet, with the highest concentrations (TCE - 15 µg/kg; PCE - 5.4 µg/kg) reported at 50 feet.

4.1.2 OU2/OU6

The results of the RI for OU2/OU6 are summarized as follows:

- The results of the RI indicated that the soil in certain areas of OU2/OU6 has been impacted, primarily by perchlorate, and to a lesser degree, by VOCs.
- Almost all areas investigated had some degree of perchlorate impacts. Areas 1, 1AN, 1AS, 4, 6, 19, 22, 25, 27, 28, 34, 37, 54, 58, 72, and 74 had reported concentrations exceeding 500 µg/kg, and Areas 1AS, 22, 25, 27, 34, 37, 54, 58, 63, 72, and 74 had reported concentrations exceeding 5,000 µg/kg. All areas except Area 1AN had impacted soil to depths greater than 40 feet. Areas 1, 1AS, 25/34, and 74 had deep soils impacts likely extending beyond a depth of 200 feet.
- Several areas had some degree of VOC impacts. Areas 1, 1AN, 1AS, 4, 6, 9, 19, 27, 28, 34, 36, 37, 53, 54, 56, 58, 63, and 72 all had total soil-gas VOC concentrations in excess of 1 µg/L, but only Areas 1, 1AS, 6, 19, 27, 34, 53, and 54 had total soil-gas VOC concentrations in excess of 10 µg/L. Areas 1 and 54 appear to be the areas that exhibit evidence of a significant source or release. In Area 1, TCE was detected at concentrations up to 240 µg/kg (soil-matrix) and 2,700 µg/L (soil-gas); and VOC impacts in Area 1 persist throughout the soil column and extend beyond a depth of 200 feet. Previous soil remediation operations for Area 1 included the excavation of between 50,000 and 60,000 cubic yards of soil to a depth of approximately 60 feet, followed by SVE operations from 1988 through 2002, during which approximately 40,000 pounds of VOCs were extracted and treated. In Area 54, PCE was detected at concentrations up to 110 µg/kg (soil-matrix) and 84 µg/L (soil-gas); TCE was detected at concentrations up to 280 µg/kg (soil-matrix) and 700 µg/L (soil-gas); and VOC impacts in Area 54 persist throughout the soil column and extend to a depth of approximately 120 feet.
- A soil vapor extraction (SVE) system performance test conducted in Area 1 (OU6) indicated that VOC concentrations were substantially reduced near the extraction wells after several days of operation. VOC concentrations were observed to increase in several of the SVE probes further away from the extraction wells, likely due to the system drawing soil gas toward the extraction system.
- Metals concentrations exceeding the maximum Site background levels were encountered in every area sampled. In most cases, the exceedances were not significantly higher than the background levels, and may still represent natural conditions. Furthermore, the exceedances were generally sporadic, without a discernable pattern, represented a small percentage of the samples analyzed, and were not indicative of a specific release or source area. In the few cases where the concentrations appeared to be substantially higher than the background levels (Areas 3, 6, and 44), the occurrences were still limited in extent.

- Polynuclear aromatic hydrocarbons (PAHs) were detected in one soil sample collected from Area 27, and dioxins and furans were detected in eight samples collected from Area 3. In both cases, the impacts were limited in extent and do not appear represent a significant release or source area.
- A small area of titanium tetrachloride ampoules was encountered during the RI in Area 9. These ampoules were excavated and taken off site for disposed in 2005.
- Up to nine feet of fill materials were identified in Area 37, which has been named the "Point Landfill". However, no debris or other evidence of landfill material was found in this area.

4.1.3 OU3

The results of the RI for OU3 are summarized as follows:

- The results of the RI indicated that the soil and bedrock in certain areas of OU3 have been impacted, primarily by perchlorate and VOCs.
- Perchlorate-impacted soil/bedrock was encountered in Areas 14 and 17. Area 14 is impacted by perchlorate, with concentrations up to 316,000 µg/kg. Perchlorate concentrations exceeding 1,000 µg/kg persisted throughout the soil/bedrock column to the maximum depth sampled (200 feet) at three boring locations along the central axis of the valley. Perchlorate impacts in Area 17 were less, with the maximum concentration being 756 µg/kg, and the vertical extent limited to the upper 40 feet of soil.
- Areas 14, 17, 30, and 76 had some degree of VOC impacts, but only Areas 14 and 30 exhibited evidence of a significant source or release. Area 14 is impacted by elevated concentrations of VOCs, primarily chlorinated hydrocarbon compounds. PCE was detected at concentrations up to 3,100,000 µg/kg (soil matrix) and 3,100 µg/L (soil gas); TCE was detected at concentrations up to 1,200 µg/kg (soil matrix) and 210,000 µg/L (soil gas), and VOC impacts in Area 14 persist throughout the soil/bedrock column and extend beyond a depth of 200 feet. Detectable VOC concentrations also extend beyond a depth of 200 feet in Area 30, but the magnitude of impact is far less severe.
- Metals concentrations exceeding the maximum Site background levels were encountered in every area sampled. In most cases, the exceedances were not significantly higher than the background levels, and may still represent natural conditions. Furthermore, the exceedances were generally sporadic, without a discernable pattern, represented a small percentage of the samples analyzed, and were not indicative of a specific release or source area. In the few cases where the concentrations appeared to be substantially higher than the background levels (nine locations in Area 14 and five locations in Area 17), and the occurrences were limited in extent.

- Limited semi-volatile organic compounds (SVOCs), nitramines and nitroaromatics, and phosphorous were detected in some of the soil samples. The extent of these compounds has been generally delineated through the trench and soil boring sampling data.
- Depleted uranium (DU) is present in Area 57 due to former firing range operations. The nature and extent of residual DU fragments in soil have been assessed by a specialty contractor (Energy Solutions). The report of the DU impact assessment and a work plan for removal of DU-impacted soil (Energy Solutions, 2009) was submitted to and approved by DTSC and the Department of Public Health-Radiological Health Branch. A removal action to address the DU-impacted soil was initiated in early 2010 and it expected to be completed by summer 2010.
- The East Fork Landfill (Area 17) was reported to have accepted non-hazardous solid waste generated from the Site operations between approximately 1965 and 1986. During the RI, fill was encountered at 23 sample locations and the depth of fill throughout Area 17 ranges from 1 to 36 feet. Based on the RI results, it was estimated that Area 17 contains approximately 66,000 cubic yards of fill material. Trash and debris were encountered in the fill material observed in all of the trenches excavated in Area 17 including: asphalt, metal, wood, plastic, paper, glass bottles, drink cans, food cans, wire, cable, clothing, rope, styrofoam, cardboard, roots, and brush.

4.1.4 OU4

The results of the RI for OU4 are summarized as follows:

- The results of the RI indicated that the soil within certain areas of OU4 has been impacted by perchlorate, VOCs, and metals.
- Perchlorate impacts were generally limited to the shallow soils in the upper portion of Hula Bowl Canyon I and the stockpiled soils in Area 16A that were excavated from Hula Bowl Canyon IV.
- Elevated concentrations of VOCs, primarily TCE and other related chlorinated hydrocarbons, were detected in the upper portion of Hula Bowl Canyon I. TCE concentrations in soil gas up to 300 µg/L persisted to the maximum depth sampled (65 feet) and detectable soil-matrix concentrations persisted to a depth of 170 feet. No other significant areas of VOC impact were identified during the RI.
- Metals concentrations exceeding the maximum Site background levels were encountered in every area sampled. In most cases, the exceedances were not significantly higher than the background levels, and may still represent natural conditions. Furthermore, the exceedances were generally sporadic, without a discernable pattern, represented a small percentage of the samples analyzed, and were not indicative of a specific release or source area. In the few areas where the concentrations appeared to be substantially higher than the background levels, the

occurrences were still limited in extent within the main landfill areas of Hula Bowl Canyons I and III, and were consistent with previous investigations.

- Hula Bowl Canyons I, II, III, and IV (Area 16) were reported all reported to have accepted non-hazardous solid waste generated from the Site operations. Based on the RI results, it was estimated that Hula Bowl Canyon I contains approximately 30,000 cubic yards of fill material; Hula Bowl Canyon II contains approximately 5,000 cubic yards of fill material; and Hula Bowl Canyon III contains approximately 2,500 cubic yards of fill material. Hula Bowl Canyon IV, which was excavated and screened as part of an USACE Technologies Demonstration project, previously contained approximately 8,100 cubic yards of fill material. Approximately 2,800 cubic yards of screened soil remains stockpiled at the head of the canyon. Trash and debris were encountered in the fill material observed in Hula Bowl Canyons I, II, and III including: metal, wood, plastic, paper, cans, glass, nails, tires, fire hose, chain link fence, porcelain, styrofoam, appliances, drums, and other miscellaneous trash items.

4.1.5 OU5

The results of the RI for OU5 are summarized as follows:

- The results of the RI indicated that the soil in certain areas of OU5 has been impacted, primarily by perchlorate and VOCs.
- Areas 2, 12, 13, 33, 46, 50, 51, and 61 had reported perchlorate concentrations exceeding 500 µg/kg, and Areas 13, 33, 46, and 51 had reported perchlorate concentrations exceeding 5,000 µg/kg. In most areas the extent of perchlorate-impacted soil was limited to the upper 40 feet, but detectable concentrations of perchlorate were reported below 40 feet in Area 2 (130 feet), Area 11 (50 feet), and Area 33 (130 feet).
- Several areas had some degree of VOC impacts. In general, VOC detections were minimal and not indicative of significant sources or releases, with the exception of Areas 2, 33, 45, and 48/49. TCE and PCE were the primary VOCs detected in OU5. PCE had the highest reported concentrations in both soil gas (4,400 µg/L) and soil matrix (4,200 µg/kg) in Area 48/49, but was not detected frequently or at high concentrations outside of Area 48/49. TCE was not detected at concentrations as high as PCE, but was detected frequently, at concentrations up to 300 µg/L (soil gas) and 180 µg/kg (soil matrix). It is significant to note that during previous investigations, several areas within OU5 were reported to have detectable concentrations of vinyl chloride (VC). However, VC was not detected in soil-gas or soil-matrix samples collected during this RI. In most areas the extent of VOC-impacted soil was limited to the upper 40 feet, but detectable concentrations of VOCs in soil and/or soil gas were reported below a depth of 40 feet in Area 2 (140 feet), Area 20 (50 feet), Area 33 (60 feet), and Area 45 (62 feet).

- Metals concentrations exceeding the maximum Site background levels were encountered in every area sampled. In most cases, the exceedances were not significantly higher than the background levels, and may still represent natural conditions. Furthermore, the exceedances were generally sporadic, without a discernable pattern, represented a small percentage of the samples analyzed, and were not indicative of a specific release or source area. In the few cases where the concentrations appeared to be substantially higher than the background levels (Areas 8, 11, 20, 21, 24, 38, 41, 47, 50, 51, 60, and 69), the occurrences were limited in extent.
- SVOCs were not present in the samples collected from OU5, with the exception of isolated detections in Areas 11, 40, 48, and 60. The only notable SVOC concentration was di-n-butyl phthalate (15,000 µg/kg), which was likely associated with a small area of paint-stained soil. The isolated and relatively low concentrations detected are not indicative of a significant source or release of SVOCs in OU5.
- Nitramines and nitroaromatics (HMX, RDX, and tetryl) were detected sporadically at low concentrations in several areas within OU5. The detections were low, isolated in nature, and not indicative of a significant release or source area.
- Nitrate concentrations were generally consistent with background levels at the Site. In the cases where nitrate exceeded the Site maximum background concentration, the exceedances were not significantly higher than the background level, and may still represent natural conditions.
- Phosphorous exceeded the background concentrations established for the Site in several sampling locations within OU5. In general, the exceedances were not significantly higher than the background levels, the distribution of concentrations was relatively consistent and not indicative of a release, and may still represent natural conditions. In the few cases where the concentrations appeared to be substantially higher than the background levels, the occurrences were still limited in extent.
- A large amount of lithologic data was collected in OU5 during this and prior remedial investigations concerning the vertical and lateral extent of refuse-containing fill. The documented industrial waste landfill in Area 2 was fully delineated and encompasses an area approximately 300 feet long, by 150 feet wide, by five feet deep (approximately 8,300 cubic yards). The current investigation uncovered a previously undocumented industrial waste landfill in Area 11 that on rough estimate encompasses an area approximately 600 feet long by 200 feet wide, by five feet deep (22,000 cubic yards).

- Flare casings (Area 51), cesspools, a fuel tank, and some stained soils were encountered during the RI field work that was removed in subsequent removal actions.
- Several removal actions were conducted throughout OU5 in 2005 that addressed abandoned septic systems, petroleum hydrocarbon stained soils, flare casings, USTs, and an allegedly red phosphorous impacted area.

4.1.6 OU6

OU6, or Area 1, is the only remaining Resource Conservation and Recovery Act (RCRA) unit at the Site. As described under the Section 4.1.2, TCE was detected at concentrations up to 240 µg/kg (soil-matrix) and 2,700 µg/L (soil-gas); and VOC impacts in Area 1 persist throughout the soil column and extend beyond a depth of 200 feet. Previous soil remediation operations for Area 1 included the excavation of between 50,000 and 60,000 cubic yards of soil to a depth of approximately 60 feet, followed by SVE operations from 1988 through 2002, during which approximately 40,000 pounds of VOCs were extracted and treated. Eighty two rounds of quarterly RCRA groundwater monitoring have been performed at this area which all has shown no chemical impact to Saugus Aquifer directly under the RCRA unit. The remaining issues related to this area will be addressed in a separate closure plan and in compliance with the applicable RCRA requirements.

4.2 Chemical Impacts in Perched Groundwater

Perched groundwater has been encountered during the RI in limited areas within OU1, OU2, OU3, and OU5. The perched groundwater generally occurs at the contact between the unconsolidated terrace deposits and the underlying Saugus Formation bedrock, and in the uppermost portion of the Saugus formation (OU3). It is likely that the perched groundwater occurs where the underlying bedrock is less permeable and impedes downward infiltration (fine-grained sandstone, siltstone, and mudstone), and is absent where the underlying bedrock consists of more permeable sandstone that allows downward infiltration. The perched groundwater occurrences are limited laterally and vertically and do not appear to be connected across the Site. Figure 5-5 illustrates where perched groundwater has been encountered with the corresponding depths and chemical impacts.

The nature and occurrence of perched groundwater within the various OUs is summarized in the following sections.

4.2.1 OU1

- Perched groundwater was encountered in OU1 in the vicinity of Areas 55 and 26. The perched groundwater in Area 55 was encountered at depths ranging from approximately 29 to 68 feet. The perched groundwater in Area 55 is likely to be heavily influenced by its proximity to the San Gabriel fault. There is one perched zone monitoring well in OU1 (Area 26) that was previously monitored on a

quarterly schedule by ENVIRON. The depth-to-groundwater measured during the first quarter 2006 was 163.90 feet (1,399.46 feet MSL).

- The perched groundwater in Area 55 has been impacted by elevated concentrations of perchlorate (up to 39,000 µg/L) and TCE (up to 16,000 µg/L). The perched groundwater in Area 26 has been impacted by elevated concentrations of perchlorate (up to 74,600 µg/L).

4.2.2 OU2

- Perched groundwater was encountered in OU2 in the vicinity of Areas 1 (also designated as OU6), 1AS, 19, 25, 34, and 74. There are currently 14 perched zone monitoring wells in OU2 that are monitored on a quarterly basis by ENVIRON. The depth-to-groundwater measured during the 2nd quarter 2009 ranged from approximately 105.73 to 206.59 feet (1,326.79 to 1,406.66 feet MSL).
- The perched groundwater in OU2 has been impacted by elevated concentrations of perchlorate (up to 201,000 µg/L) and TCE (up to 16,000 µg/L).

4.2.3 OU3

- Perched groundwater was encountered in OU3 in the vicinity of Areas 14 and 17. There are currently two perched zone monitoring wells in Area 14 and one well in Area 17 that are monitored on a quarterly basis by ENVIRON. The depth-to-groundwater measured during the 2nd quarter 2009 in Area 14 ranged from approximately 112.82 to 188.43 feet (1,270.43 to 1,314.48 feet MSL). The depth-to-groundwater measured during the 2nd quarter 2009 in Area 17 was 34.02 feet (1,518.40 feet MSL).
- The perched groundwater in OU3 has been impacted by elevated concentrations of perchlorate (up to 117,000 µg/L) and PCE (up to 120,000 µg/L) in Area 14, and perchlorate (up to 14,100 µg/L) and cis-1,2-DCE (up to 9.2 µg/L) in Area 17.

4.2.4 OU5

- Perched groundwater was encountered in OU5 in the vicinity of Areas 41 and 50. There is currently one perched zone monitoring well in Area 41 and one well in Area 50 that are monitored on a quarterly basis by ENVIRON. The depth-to-groundwater measured during the 2nd quarter 2009 was 38.47 feet (1,232.94 feet MSL) in Area 41 and 34.35 feet (1,233.19 feet MSL) in Area 50.
- The perched groundwater in OU5 has been impacted by elevated concentrations of perchlorate: up to 245 µg/L in Area 41, and up to 1,150 µg/L in Area 50.

4.3 Munitions and Explosives of Concern

Pursuant to the Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (DTSC, 2002), and to address the potential presence of unexploded ordnance (UXO) or “Munitions and Explosives of concern” (MEC) at the Site, Whittaker Corporation retained EOD Technologies, Inc. (EODT) to provide UXO/MEC avoidance and management support during the RI and construction activities. In addition, EODT has been tasked to provide a Site-wide assessment to determine the scope of the UXO/MEC removal activities and prepare work plans for DTSC review and approval. To accomplish this, EODT has studied the history of the operations and production items manufactured or tested at the Site and prepared the following documents:

- Work Plan for UXO/OE Investigation, Clearance, and Construction Support
- Historical Site Assessment (HSA) Report
- Geophysical Prove-out Report, and
- Work Plan Addendum for Further/No Further Investigation Sites for the Munitions and Explosives of Concern (MEC) Program.

The first two documents were submitted to and approved by the DTSC. The third document has been submitted to DTSC and currently is under review.

The purpose of the HSA was to evaluate the historical production-related assembly, testing, and waste management practices at the Site to determine if these practices have resulted in the release of UXO/MEC. The HSA evaluated the potential presence of UXO/MEC throughout the entire Site and determined that only few specific areas presented concerns of possible presence of UXO/MEC. These specific areas have been identified for future UXO/MEC assessment and removal activities. In addition, the results of the geophysical prove-out work conducted at the Site will be used to select the types of the geophysical instruments that are appropriate for detection of MEC under the specific Site conditions.

A work plan addendum to begin the first phase of the UXO/MEC assessment and removal activities at the Site was submitted to DTSC for review and approval in July 2009. The work plan addendum includes assessment and removal of MEC in specific areas of the site, including the target range (Area 57) and areas around some of the landfills where UXO/MEC are known to be present or are expected to be present.

4.4 Site Conceptual Models

In order to illustrate the various impacts at the Site and transport and exposure pathways, two general Site conceptual models have been developed. The first, which is illustrated in Figure 4-6, shows the interpreted model for the Site area located on the southwest side of the San Gabriel fault, and generally represents conditions for OU2/OU6, OU3, and OU4. The second, which is illustrated in Figure 4-7, shows the interpreted model for the Site area located on the northeast side of the San Gabriel fault, and generally represents conditions for OU5.

The presence of the San Gabriel fault, which bisects the Site from the southeast to the Northwest, has resulted in substantially different transport and exposure pathways related to groundwater impacts. On the southwest side of the fault, the impacted areas at the Site are underlain by coarse grained unconsolidated terrace deposits overlying dipping bedrock of the Saugus formation, and groundwater generally occurs within the Saugus formation at depths of several hundred feet. Within the vadose zone, chemical transport is downward through the unconsolidated terrace deposits, until it reaches the Saugus formation bedrock. In some locations, perched water occurs at the terrace deposit/Saugus formation contact. Chemical transport then proceeds downward within the Saugus formation, but is largely controlled by the dip of the bedding planes. Chemical transport within the groundwater continues downward along the bedding planes within the hydrostratigraphic units of the Saugus aquifer. Chemical transport may also occur along the surface water drainages where it could ultimately discharge to the alluvial aquifers.

On the northeast side of the fault, the impacted areas at the Site are underlain by alluvial deposits of the Santa Clara River and its tributaries overlying dipping bedrock of the Saugus formation, or directly underlain by Saugus formation. Groundwater within the Saugus formation generally occurs at relatively shallow depths (less than 100 feet), and groundwater generally occurs within the alluvial deposits of the Santa Clara river at relatively shallow depths (less than 40 feet) and fluctuate with the seasons and rainfall events. There is also an upward vertical gradient from the Saugus formation to the overlying alluvial deposits. In the downslope areas proximal to the Santa Clara River (Northern Alluvium), the chemical transport within the vadose zone is downward directly to the Northern Alluvium aquifer. In the upslope areas, chemical transport in the vadose zone is downward through the unconsolidated alluvial deposits (where present), until it reaches the Saugus formation bedrock. In some locations, perched water occurs at the alluvial deposit/Saugus formation contact. Chemical transport then proceeds downward within the Saugus formation, but is largely controlled by the dip of the bedding planes. Chemical transport within the groundwater continues downward along the bedding planes within the hydrostratigraphic units of the Saugus aquifer, but is also controlled by the presence of the San Gabriel fault, which prevents further downdip transport and diverts flow to the northwest parallel to the fault. Chemical transport may also occur along the surface water drainages where it could ultimately discharge to the alluvial aquifers.

These differences in the overall conditions of the affected media and the fate and transport of chemicals require consideration of different remedies and implementation approach. Section 7 provides a detailed discussion of remedial measures selected to address the impacts to various media and transport pathways depicted in Figures 4-6 and 4-7.

Section 5

Development of Remedial Goals

5.1 Introduction

While the remedial action objectives presented in Section 1 are general criteria that will be sought by the overall remediation plan, remedial goals, which are described in this section, are chemical and media-specific numerical target concentrations to be achieved by the remedial actions. As described previously in Section 1, the remedial action objectives of this RAP are as follows:

- Protection of human health.
- Protection of ecological receptors.
- Protection of surface water quality.
- Protection of groundwater quality.

The final remedial goals for the Site will meet these four objectives. When possible, specific remedial goals that support these objectives are presented in the following sections. As discussed in Section 1, based on the magnitude and extent of chemical impacts in specific areas of the Site, unrestricted land use may not be appropriate for approximately two percent of the entire Site area. These areas would likely be suitable for commercial and recreational land use, or designated as open space. Therefore, this RAP retains the flexibility to implement appropriate institutional and/or engineering controls for areas where reductions of the chemical impacts to levels that are suitable for unrestricted land use are not technically and/or practically feasible.

The remedial goals consider different risk tolerance levels that are appropriate for alternative land uses (e.g., commercial/industrial, multifamily residential, open space), thereby maintaining flexibility to apply differing risk-based goals should a different development plan be in place at the time of cleanup.

The achievement of remedial goals will be confirmed through sampling and analysis to demonstrate that residual concentrations of chemicals do not pose an unacceptable risk to human health or the environment. Remedial goals may also be achieved through the use of institutional controls, engineering controls, and deed restrictions.

The general approach on which the preliminary remedial goals are based was first presented in the document titled "Derivation of Soil Screening Levels for Protection of Human Health and the Environment, Submitted as Part of the Remedial Investigation Report for Operable Units 2 through 6," (ENVIRON, 2007b). The report included a Tier 1 Human Health Risk Assessment (HHRA) to evaluate potential risks to human health resulting from exposure to Site-related chemicals. A screening level assessment of potential risk at the Site under current conditions was performed by comparing existing soil and soil gas concentrations measured at the Site against risk-based target

concentrations (RBTCs) developed for the potentially exposed populations. The RBTCs represent a conservative estimate of the average concentrations of chemicals in soil or soil gas that can be present without posing an unacceptable risk to human health.

The 2007 report also included the derivation of perchlorate and VOC soil screening levels (SSLs) for the protection of groundwater at the property line, derivation of soil/sediment screening levels for protection of surface water runoff quality, and derivation of a set of perchlorate screening levels for soil and surface water for the protection of ecological receptors at the Site. All of these SSLs were developed based on the current Site conditions and do not take into account the changes to the hydrology and configuration of the Site that would likely take place under a future redevelopment plan. It is anticipated that future redevelopment would involve significant cut-and-fill activities, land cover changes, and installation of storm water collection systems and changes to natural Site drainage systems. These changes would, in general, reduce the potential for transport of chemicals of concern from soil to groundwater, surface water, and ecological receptors. In the event that an approved redevelopment plan is in place prior to the completion of cleanup efforts, then the SSLs could be re-evaluated to account for these factors.

The remainder of Section 5 is divided into five subsections. Section 5.2 summarizes the risk assessment approach and describes how the RBTCs were developed. Based on an initial screening of existing data using RBTCs, areas of the Site that may require risk management or more detailed risk analysis were identified. Section 5.2 concludes with a description of how the RBTCs can be used as remedial goals. The derivation of screening levels to protect groundwater quality, surface water quality, and ecological receptors are presented in Sections 5.3, 5.4, and 5.5, respectively. Each of these subsections concludes with a description of how the SSLs can be revised to develop remedial goals. A summary of the preliminary remedial goals is presented in Section 5.6.

5.2 Remedial Goals for Protection of Human Health

To support risk management decisions for the former Whittaker-Bermite facility, ENVIRON prepared a screening-level HHRA on behalf of Whittaker Corporation. The objective of the Tier 1 HHRA was to characterize potential risks to human health resulting from exposure to Site-related chemicals and to develop risk based target concentrations (RBTCs) for chemicals of potential concern (COPCs) identified in soil, soil gas, and surface water. Consistent with risk assessment guidance from the California Environmental Protection Agency (Cal/EPA)¹, the assessment is referred to as a "Tier 1" or "screening-level" HHRA because it was conducted using a very conservative approach that allowed the rapid screening of areas of the Site into:

¹ Cal/EPA. 2005. *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*. January.

1) areas below risk levels of concern, and 2) areas that require more detailed risk evaluation based on area-specific factors (e.g., land use) prior to remediation design.

Conservative assumptions were used in the HHRA such that areas identified as being below risk levels of concern can confidently be assumed to not pose a significant health risk to people under the land-use scenarios evaluated. As described in the following sections, there are significant portions of the Site that are below risk levels of concern for any land use. In these areas, no risk management measures are needed before redevelopment. For areas that cannot be screened out using the Tier 1 analysis, a more detailed risk evaluation could be undertaken to determine whether risks are still above levels of concern. Should subsequent evaluations in later phases of this project identify the need for further refinement of the risk estimates, the scope of any additional risk evaluations would be discussed with the Department of Toxic Substances Control (DTSC) and supplemental analyses would be presented in appropriate supporting documents.

5.2.1 Scope and Approach of the Screening-Level HHRA

The Tier 1 HHRA presents an evaluation of human health risks associated with potential exposures to chemicals in shallow soils (up to ten feet below ground surface) and with volatile organic compounds (VOCs) present as vapors in underlying soils. Potential exposures of people to surface water in streams at the Site were also evaluated. While protection of groundwater is a specific environmental management goal identified for the Site, evaluation of the groundwater pathway was not addressed in the HHRA.

The Tier 1 HHRA for the Site was conducted using an approach in which RBTCs were compared to sampling results for risk estimation, as follows:

- Develop receptor-specific RBTCs for soil, soil gas, and surface water for all COPCs. The RBTCs are chemical-specific concentrations corresponding to a cancer risk of 1×10^{-6} or a hazard quotient of one (1). Separate sets of cancer and non-cancer RBTCs were developed for each receptor evaluated.
- Calculate the cancer risks and non-cancer hazard indices associated with the measured concentrations of chemicals at each individual sampling location. This approach is often referred to as a "point-by-point approach" and relies on the use of the maximum detected concentration at each sampling location across the Site. The risks were estimated based on the ratio of the detected Site concentrations to the RBTCs, as described in detail in the HHRA. Health risks calculated for concentrations detected at individual sampling locations do not necessarily represent the risk to anyone who may live or work at the Site, but patterns of sampling points associated with high estimated health risks indicate areas where risk management may be required.

- Plot the cancer risks and hazard indices estimated for each sampling location on Site maps to facilitate the identification of areas where risk management (e.g., remediation) may be required. The maps prepared for the Tier 1 HHRA show human health risks associated with individual sampling locations and depict cancer risks corresponding to values less than, within, and greater than the target risk range of 1×10^{-6} to 1×10^{-4} , and hazard indices corresponding to values less than or greater than one, between one and ten, and greater than ten. The Site maps depicting cancer risks and hazard indices were included as Figures 8.1 through 8.41 of the April 2007 ENVIRON report.
- Perform additional analysis for all sampling locations where the estimated cancer risks are within or greater than the target risk range and hazard indices are greater than one. Specifically, the chemicals contributing to the cancer risks or non-cancer hazard indices were presented.

5.2.2 Chemicals of Potential Concern

In parallel with the point-by-point approach used to evaluate and present the risk characterization results for the HHRA, the methodology for selecting soil and soil gas COPCs was applied to each individual sampling location within OUs 2 through 6. For organic chemicals, all detected chemicals in soil or soil gas were retained as COPCs at a given location. Metals and inorganic anions (specifically, fluoride, nitrate, and nitrite) detected at concentrations greater than Site-specific background levels were retained as soil COPCs, with those metals present at background levels and essential nutrients excluded from the evaluation at that location.

For surface water, early studies of surface water quality at the Site indicated that only perchlorate was present at elevated concentrations, with concentrations of all other analytes below reporting limits or at levels considered to be background. Based on these findings, more recent surface water studies analyzed for perchlorate only. Consistent with these findings, perchlorate was the only COPC identified for surface water.

5.2.3 Potentially Exposed Populations

Various land-use designations have been proposed for the Site, including residential, commercial, recreational, and open space. Consistent with current and proposed land uses, risks associated with potential exposures to chemicals in soil and soil gas was evaluated for the following human receptor populations:

- Sensitive-use receptor (adult/child)
- Home gardener
- Commercial/industrial worker
- Construction worker

- Recreational users

DTSC requested that a “sensitive-use receptor” be evaluated to support risk management decisions that will be made for the Site. The evaluation of the sensitive-use receptor was based on exposure factors recommended by DTSC for a resident receptor. Cal/EPA considers the residential evaluation, based on single-family homes with private yards, and including children and adults as part of the household, to be appropriate for analyzing other sensitive property uses such as hospitals and day care centers. An additional residential exposure pathway considered was consumption of homegrown produce, evaluated for the home-gardener scenario. With the exception of lead, California regulatory agencies do not typically evaluate consumption of homegrown produce in risk assessments for residential sites in urban settings, although DTSC notes that Site-specific considerations may justify an evaluation of this pathway. Because studies have shown that lettuce and other plants irrigated with water containing perchlorate can take up perchlorate into edible plant parts, DTSC requested evaluation of the homegrown produce pathway for perchlorate at this Site.

A conceptual Site model for soil and surface-water exposure pathways was developed to identify the specific exposure pathways for each receptor. The model identifies chemical sources, potentially impacted media, and the potential human exposure routes for contacting impacted media. These source-pathway-receptor relationships provide the basis for the quantitative exposure assessment and development of RBTCs.

5.2.4 Estimates of Chemical Transport

To evaluate potential transport of VOCs in soil gas, vapor transport models consistent with the Johnson and Ettinger model and assumptions recommended by DTSC were used to estimate air concentrations for the following pathways:

- Transport of volatile chemicals into buildings (commercial and residential)
- Transport of volatile chemicals into ambient air
- Transport of volatile chemicals into trenches
- Transport of volatile chemicals into recreational/park areas

In addition, airborne particulate concentrations were modeled to evaluate exposures associated with chemicals potentially present on inhaled dusts.

Estimates of chemical transport to surface water and groundwater are summarized in later portions of this section.

5.2.5 Risk Characterization Results under Current Conditions

The following discussion presents the results of the Tier 1 HHRA for the sensitive-use scenario and home-gardener scenario. The discussion is organized by medium (i.e., soil, soil gas, and surface water) and presents the risk results organized by contaminant type.

Soil

Under the sensitive-use scenario, three exposure pathways were evaluated: incidental ingestion of soil, dermal contact with soil, and inhalation of airborne particulates. Only a very small number of the over 70 COPCs identified in soil were found to be present at concentrations (even in single samples) above RBTCs. This indicates that for soil, cancer risks are below the lower end of the target risk range (i.e., less than 1×10^{-6}) and hazard indices are less than one for most areas of the Site. The soil sampling locations with COPCs present at concentrations above RBTCs were generally isolated and represented a very small fraction of the samples analyzed.

The home-gardener scenario is similar to the sensitive-use scenario in that the same standard exposure pathways were evaluated: incidental ingestion of soil, dermal contact with soil, and inhalation of airborne particulates. For these pathways, the cancer risks and noncancer hazard indices are the same as those estimated under the sensitive-use scenario. In addition, the ingestion of homegrown produce pathway was evaluated for perchlorate. In contrast to the results for the sensitive-use scenario, multiple sampling locations within spatially larger areas were found to exceed the perchlorate RBTC for the home-gardener scenario, indicating the potential for a hazard quotient greater than one (1) in areas used for growing garden produce. Perchlorate is not considered to be a carcinogen, and so potential cancer risks were not estimated for the ingestion of homegrown produce pathway.

- **Perchlorate.** The RBTC for perchlorate under the sensitive-use scenario is 28 mg/kg and the RBTC under the home-gardener scenario is 0.1 mg/kg. As discussed above, the exposure pathways considered under the sensitive-use scenario are incidental ingestion of soil, dermal contact with soil, and inhalation of airborne particulates. The home-gardener scenario includes these same pathways as well as the homegrown produce pathway. A comparison of the two RBTCs shows that the soil RBTC for the home-gardener scenario of 0.1 mg/kg is significantly less than the RBTC of 28 mg/kg for the sensitive-use scenario. Perchlorate can be taken up by garden produce, such that perchlorate intake from ingesting homegrown produce is significantly higher than intake from the other exposure pathways for soil at any given soil concentration. Accordingly, a lower RBTC under the home-gardener scenario is needed to achieve the same level of protection as under the sensitive-use scenario.

- The RBTC previously derived for OU1 is 0.5 mg/kg². This RBTC, which is most directly comparable to the RBTC derived in the Tier 1 HHRA for the home-gardener, is somewhat higher than the RBTC of 0.1 mg/kg derived for OUs 2 through 6 (for this discussion, referred to as the “OU2-6 RBTC”) for the home-gardener scenario. The two RBTCs were derived for the same exposure pathways, i.e., ingestion of soil, dermal contact with soil, inhalation of airborne particulates, and ingestion of homegrown produce. The OU2-6 RBTC is less than the OU1 RBTC due to a change in the toxicity value (reference dose or RfD) for perchlorate and changes in some of the modeling parameters used to derive the RBTC. The specific differences in the two derivations are as follows:
 1. The OU2-6 RBTC was derived using the “RfD equivalent” that Cal/EPA applied in the derivation of the Public Health Goal for perchlorate. The use of this value was approved by DTSC. The OU1 RBTC was derived using an older RfD from the U.S. Environmental Protection Agency (USEPA) that was accepted at that time.
 2. The OU2-6 RBTC was derived using site-specific plant uptake factors to model perchlorate uptake by homegrown produce. ENVIRON completed a plant uptake study, in which lettuce, radishes, and tomatoes were grown in perchlorate-impacted soils collected from the Site. The results of the study were used to derive Site-specific plant uptake factors that describe the ratio of perchlorate concentrations in plants to those in soils. The OU1 RBTC was based on a lower value for the plant uptake factor that had been taken from the literature, but which was not specific to the Site.
 3. Different produce ingestion rates were used to derive the OU2-6 RBTC, considering Site development plans and the differences in anticipated gardening practices between stand-alone single-family residences and multi-family apartments or condominiums that may not have access to on-grade soils for gardening.

Although perchlorate is one of the most widespread chemicals in Site soils, concentrations in shallow soils (i.e., within the 0 to 10 feet depth interval) are below the RBTC for the sensitive-use scenario at the vast majority of sampling locations. For OU2, Facility Areas with sampling locations above the sensitive-use RBTC of 28 mg/kg include one sampling location in Area 27 and five sampling locations in or near Area 34. For OU3, perchlorate concentrations are above the RBTC at two sampling locations in Area 14 (Burn Valley). The concentrations of perchlorate at these locations range from approximately 42 to 1,700 mg/kg, corresponding to estimated hazard quotients of approximately 2 to 60. Perchlorate concentrations were less than the RBTC at all sampling locations in OUs 4, 5, and 6.

² CDM. 2005. Remedial Action Plan, Operable Unit 1 (OU1), Former Whittaker-Bermite Facility, Santa Clarita, California. Prepared for Whittaker Corporation. February 3.

Perchlorate concentrations exceed the home-gardener RBTC at a large number of shallow soil sampling locations. Within OU2, perchlorate concentrations exceed the RBTC at roughly 90 sampling locations throughout the OU. For OU3, almost all exceedances are found within Area 14 (Burn Valley). For OU4, locations exceeding the RBTC are found mainly along the northeastern boundary between OUs 4 and 5. Sampling locations with perchlorate concentrations greater than the RBTC were identified in several areas of OU5 including locations in the southern portion of the OU (Areas 2 and 21, and Former Buildings 502, 504, and 506), the western portion of the OU (Areas 46 and 67), and the northeastern portion of the OU (Areas 10, 12, 29, and 51).

As discussed in later sections of this HHRA summary, the proposed perchlorate soil cleanup levels for protection of groundwater range from 0.04 mg/kg (Northern Alluvium) to 0.56 mg/kg (Saugus Area) depending on depth and particular hydrostratigraphic unit, therefore, these levels are lower than the sensitive-use RBTC, and depending on location, are also lower than the home-gardener RBTC. Thus, in some areas of the Site, primarily in the Northern Alluvial areas, risk management decisions are based on the more stringent cleanup levels required for protection of groundwater.

- **Metals.** Metal concentrations exceeding the maximum background concentrations used to screen for chemicals present above natural background levels were detected in OUs 2 through 5. In most cases, exceedances were only slightly higher than the Site-specific screening levels used to distinguish background concentrations from concentrations associated with past Site operations. Only nine of the sampling locations were identified with metal concentrations greater than their RBTCs. For OU3, three locations within Area 14 (Burn Valley) were identified with metals concentrations above RBTCs. The estimated hazard indices associated with these individual sampling points range from three to seven, and the metals exceeding RBTCs at these locations are cadmium, copper, and thallium. For OU4, the concentration of arsenic is greater than the RBTC at one sampling location in Hula Bowl Canyon I, with an associated hazard index of 14. For OU5, concentrations of copper were above the RBTC at four adjacent sampling locations in Area 29, and antimony was detected at a concentration above the RBTC at one location in Area 69. The hazard indices at these individual sampling locations range from one to four.

The potential for health effects associated with lead was evaluated by comparing detected concentrations of lead in soil with the California Human Health Screening Level (CHHSL) of 150 mg/kg for residential soils and the USEPA Region 9 preliminary remediation goal (PRG) of 800 mg/kg for commercial/industrial soils. Comparisons of measured lead concentrations to these screening levels identified eight locations in OUs 3, 4, and 5 with lead concentrations between 150 and 800 mg/kg and four locations with lead concentrations greater than 800 mg/kg. The maximum detected lead concentration at the Site was 16,000 mg/kg.

- **Polycyclic aromatic hydrocarbons (PAHs) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).** PAHs were detected at concentrations greater than their RBTC at two sampling locations, one between Areas 27 and 44 in OU2, with an associated cancer risk of 3×10^{-4} , and one in OU5 with an estimated cancer risk of 3×10^{-6} . TCDD was detected at concentrations greater than the RBTC at two noncontiguous sampling locations in Area 14 (Burn Valley) in OU3. The estimated cancer risks for TCDD associated with these individual sampling locations are 1×10^{-6} and 3×10^{-6} .
- **Petroleum hydrocarbons.** Petroleum hydrocarbons were detected at concentrations greater than their RBTC at one location in Area 39 in OU2 and one location in Area 51 in OU5. The hazard indices associated with these individual sampling locations are 2 and 12, respectively.
- **Volatile organic compounds (VOCs).** Chlorinated solvents and their degradation products (tetrachloroethylene [PCE], trichloroethylene [TCE], and vinyl chloride), are the primary volatile COPCs contributing to cancer risks within or greater than the target risk range and/or hazard indices greater than one. All locations with VOC concentrations greater than soil RBTCs are present in areas where soil gas concentrations exceed the soil- gas RBTCs. Detailed discussion of these areas is provided below.

Soil Gas

Two substantial soil gas investigations have been completed at the Site, roughly in the time periods of 1995 to 1997 and 2003 to 2005. In many areas, soil gas locations sampled in 1995 to 1997 were not resampled during the 2003 to 2005 timeframe. While total VOC levels in soil gas typically decrease over time as chemicals diffuse in the subsurface and/or are released into ambient air, risks may not decrease because the relative proportion of constituents in the mixture may change due to the formation of degradation products. There did not appear to be sufficient spatial overlap in the sampling locations from the two time periods to base the risk estimates on the more recent data alone. As a conservative, screening-level approach, ENVIRON used the combined analytical data from both periods even though the older data may no longer be fully representative of current Site conditions.

Under the sensitive land-use scenario, the estimated cancer risks and hazard indices associated with soil gas concentrations are within or greater than the target risk range in many areas of the Site. Chlorinated solvents and their degradation products (primarily PCE, TCE, and vinyl chloride) are the primary contributors to the cancer risk. Most of the chlorinated solvents are carcinogens, with the RBTCs based on carcinogenic effects more stringent than the RBTCs based on noncancer effects. While the Tier 1 HHRA evaluated both, cancer and noncancer effects, the discussion below focuses on the results based on the cancer endpoint given that all areas with elevated hazard indices are located in areas with cancer risks within or above the target risk range.

- **PCE, TCE, and vinyl chloride.** Over 30 Facility Areas have been identified with concentrations of PCE, TCE, and/or vinyl chloride in soil gas at individual sampling locations associated with cancer risks greater than 1×10^{-4} . In contrast to the findings for soil, elevated soil gas concentrations were typically found in multiple adjacent samples from an investigated area. Spatially, the larger areas of contamination are within OUs 2 and 3, with smaller areas identified in OUs 4 and 5. Within OU2, the primary Facility Areas with detected soil gas concentrations associated with cancer risk levels above the target risk range are Areas 53, 54, and 72, in the eastern portion of the OU; Areas 4, 22, 37, and 63 in the central portion of the OU; and Areas 27, 28, and 36 near the central, northern boundary. In OU3, Area 14 (Burn Valley) comprises the largest area of the Site with soil gas concentrations associated with estimated cancer risks greater than 1×10^{-4} . Other locations within OU3 with cancer risks above the target risk range include Areas 17 and 30 (both contiguous with Area 14), and Area 76. Cancer risks are within or greater than the target risk range at a few isolated sampling locations within Hula Bowl Canyons I and IV in OU4. Sampling locations with cancer risks within or greater than the target risk range were also identified for several areas in OU5, including Areas 2, 20, 25, 31, 48, 49, 51, 66, and Former Buildings 502, 504, and 506.
- **Other VOCs.** Concentrations of a limited suite of other VOCs were also above RBTCs. These compounds include the carcinogens carbon tetrachloride, chloroform, and benzene, and the noncarcinogens, cis-and trans-1,2-dichloroethene and 1,1-dichloroethene. In all cases, these chemicals are co-located with the chlorinated compounds discussed previously (i.e., PCE, TCE, and vinyl chloride).

The soil-gas RBTCs used in this HHRA are based on conservative modeling and exposure assumptions and may significantly overestimate risks associated with a given area. Thus, those areas identified as being below risk levels of concern can confidently be assumed to not pose a significant health risk to people under the land-use scenarios evaluated. As previously noted, most areas of VOC contamination fall into one of two categories: areas clearly below and areas clearly above risk levels of concern, such that more detailed risk evaluations are not anticipated. That is, further refinement of soil-gas RBTCs would not change the overall conclusions regarding the need for remediation of those areas with elevated risk. However, further evaluations may be conducted in later phases of this project if the need for further refinement of the soil-gas RBTCs is identified (e.g., depth-specific RBTCs). The scope of any additional work and evaluations would be closely coordinated with DTSC. The soil-gas RBTCs are summarized in Table 7.6 of the ENVIRON April 2007 report.

Surface Water

As previously discussed under the section Chemicals of Potential Concern, perchlorate was the only COPC identified for surface water. A surface water perchlorate RBTC of 4.8 milligrams per liter (mg/L) was derived for a recreational scenario, assuming a youth could contact water in the streams at the Site under current or possible future conditions. The measured perchlorate concentrations were less than the RBTC in all samples.

5.2.6 Use of RBTCs as Remedial Goals

The soil, soil gas, and surface water RBTCs derived in the Tier 1 HHRA are identified as preliminary remediation goals for protection of human health. These RBTCs are media and chemical-specific concentrations corresponding a cancer risk of 1×10^{-6} or a hazard quotient of 1. Separate sets of RBTCs were developed for each combination of media (soil, and soil gas) and receptor (sensitive-use receptor, home gardener, commercial/industrial worker, construction worker, and recreational users) evaluated. For surface water, RBTCs were developed only for a recreational user.

The preliminary RBTCs may be revised, as appropriate, to address area-specific considerations and target risk levels based on land-use considerations. Factors that will be considered in establishing the final area-specific RBTCs for protection of human health include the following:

- The RBTC of 100 µg/kg for perchlorate derived for the Home Gardener scenario would be applied across the Site to meet the unrestricted land use goal for the upper ten feet of soil, or if a new development plan is in place, in areas with single-family residences. In areas of multi-residential units, such as apartments, townhomes, or condominiums, the sensitive-use RBTC of 28,000 µg/kg would be applied. However, the lower RBTC would be applied in developments with the potential for exposure to home-grown produce, including, for example, community gardens. Areas of perchlorate impacts known to exceed the home-gardener and sensitive-use RBTCs are shown on Figure 5-1.
- The RBTC of 200,000 µg/kg for perchlorate derived for the Construction Worker scenario would be applied in areas undergoing construction for the upper ten feet of soil. Although shown in the key for Figure 5-1, there are no known perchlorate concentrations exceeding 200,000 µg/kg in the upper ten feet of soil at the Site.
- The RBTC of 350,000 µg/kg for perchlorate derived for the Commercial Worker scenario could be applied for areas designated for commercial land use for the upper ten feet of soil. Although shown in the key for Figure 5-1, there are no known perchlorate concentrations exceeding 350,000 µg/kg in the upper ten feet of soil at the Site.

- The RBTC of 190,000 $\mu\text{g}/\text{kg}$ for perchlorate derived for the Child Park Visitor scenario could be applied for areas designated for recreational land use for the upper ten feet of soil. Although shown in the key for Figure 5-1, there are no perchlorate concentrations known to exceed 190,000 $\mu\text{g}/\text{kg}$ in the upper ten feet of soil at the Site.
- The RBTC of 640,000 $\mu\text{g}/\text{kg}$ for perchlorate derived for the Youth Mountain Biker scenario could be applied for areas designated for open space land use for the upper ten feet of soil. Although shown in the key for Figure 5-1, there are no perchlorate concentrations known to exceed 640,000 $\mu\text{g}/\text{kg}$ in the upper ten feet of soil at the Site.
- For metals, the RBTCs for the sensitive-use receptor will be applied to meet unrestricted land use conditions. For some metals, the construction-worker scenario RBTCs are less than the sensitive-use RBTCs; however, protective measures, if necessary, can be implemented during construction activities to mitigate the potential risks. Additionally, for some metals (e.g., aluminum), the construction worker RBTCs are less than the background levels established for the Site, and a cleanup goal below naturally-occurring levels would not be appropriate. In the case of arsenic, the RBTC for the unrestricted land use scenario is less than the naturally-occurring background level at the Site. Therefore, arsenic will be addressed only in the event that the analytical data clearly indicate that a release has occurred resulting in concentrations significantly higher than background levels. An initial screen will be conducted during the remedial design phase by comparing soil concentrations with the upper background limits established for this Site of 6 mg/kg. In areas where arsenic concentrations exceed these limits, a statistical evaluation will be conducted. This evaluation will include 1) identification of the appropriate exposure unit (i.e., area) for statistical evaluation, considering the proposed land use for the area, and 2) statistical testing (using two-sample hypothesis testing of central tendency and upper percentiles) to compare the analytical results for the designated area with the background data set. For arsenic, a background data set was established in the AME background study (AME 1997b).
- The soil gas RBTCs were derived based on a set of generic, but conservative assumptions and did not take into consideration area-specific factors. The approximate areas exceeding the soil-gas RBTCs for various land use scenarios for VOCs within the upper 100 feet of soil are shown in Figure 5-2. It should be noted that the soil-gas RBTCs were derived for the upper 5 feet of soil. During the preparation of the RD, vapor intrusion risk modeling will be conducted for the VOC-impacted areas using area-specific factors to evaluate potential changes in the RBTCs with increasing depth.

- The Tier 1 HHRA was conducted using a point-by-point approach in which cancer risks and hazard indices were estimated for each individual sampling location. In identifying areas for remediation, the risk estimates may be refined by identifying an appropriate exposure area (considering the identified land use) and deriving an upper confidence limit on the arithmetic mean (95UCL) for the exposure area.
- In some areas, revised RBTCs may be required for protection of human health to address cumulative risks associated with the presence of multiple COPCs.
- As discussed in Section 7, the proposed land use will be considered in identifying the remediation goals for protection of human health in any given area.

The preliminary RBTCs are intended to help guide risk management decisions regarding the need for remediation and will be considered in conjunction with the soil screening levels described in the following sections. For protection of human health, Cal/EPA generally considers an incremental risk of one in one million (1×10^{-6}) to be a point of departure for purposes of making risk management decisions, with most approved site closures for unrestricted land use achieving an incremental risk level of ten in one million (1×10^{-5}) or less and a hazard index of one or less. In some settings, a higher cancer risk level may be approved for commercial/industrial and recreational land use. For areas targeted for remediation, the final remedial goals for protection of human health will be identified using a comprehensive approach that includes consideration of land use, cumulative cancer risk and hazard indices, and the appropriate level of protection for the area to which they apply.

5.3 Perchlorate and VOC Screening Levels for Groundwater Protection

Preliminary soil and soil gas screening levels for groundwater protection were developed for perchlorate and VOCs. The screening levels were derived to support evaluation of the soil-to-groundwater transport pathway and identification of containment measures to prevent further off-Site transport of perchlorate and VOCs in groundwater at levels above health-based benchmarks. The soil (or soil gas) screening levels for groundwater protection were developed for application in OUs 2 through 6. The preliminary SSLs were developed assuming the Site remains in its current relatively natural state with no redevelopment. If the Site is redeveloped, land cover changes, surface water drainage systems, and infiltration control systems would tend to reduce the risk of soil to groundwater movement and off-Site transport of perchlorate and VOCs. Thus, revised SSLs will be needed to account for future Site conditions under the applicable approved redevelopment plan.

In addition, the OU7 groundwater remediation approach for both the Saugus aquifer and the Northern Alluvium area incorporates boundary containment as a key Remedial Action Objective for groundwater. A pilot groundwater extraction system at the downgradient Site boundary is already in operation in the Northern Alluvium area, and the work plan for a pilot remediation program for the Saugus aquifer has

been approved by DTSC and is being implemented. Groundwater extraction for on-site hydraulic containment purposes is a key element of the remedial alternatives being evaluated for the Saugus aquifer through implementation of the referenced pilot program. It is expected that the full-scale implementation of these measures will fulfill the objective of groundwater quality protection.

For perchlorate, preliminary soil screening levels for groundwater protection are based on a target concentration in groundwater at the property boundary of 6 µg/L, the California maximum contaminant level (MCL). The screening levels represent the maximum concentration of perchlorate that can be left in soils that will not cause the target groundwater concentration to be exceeded at any point along the property boundary in the future. Similarly, the preliminary soil screening levels for VOCs are based on target concentrations in groundwater at the property boundary corresponding to the MCL or a drinking water RBTC.

5.3.1 Estimates of Chemical Transport

The calculation of screening levels was based on simple models of perchlorate and VOC transport in the unsaturated and saturated zones. While there is both uncertainty and variability in transport rates, the models were designed to give very conservative estimates of perchlorate and VOC transport that likely overestimate the concentrations that will occur in groundwater for a given soil or soil gas concentration.

Conceptual models of water infiltration pathways through the vadose zone were developed for three different portions of the Site: 1) the Northern Alluvium vadose zone, 2) the area where the Saugus Formation is exposed at ground surface and forms the vadose zone (generally northeast of the San Gabriel Fault), and 3) the area where Terrace deposits overlie the Saugus Formation in the vadose zone (generally southwest of the San Gabriel Fault).

For the purpose of developing groundwater protection screening levels, the Site was divided into two areas based on typical depth to groundwater: the Northern Alluvium Area and the Saugus Area. The Northern Alluvium Area is the northern portion of OU5 in which the upper geological unit is alluvium. The remainder of the Site (except OU1) is included in the Saugus Area. The water table in the Northern Alluvium Area is typically about 40 feet below ground surface, while in the Saugus Area it is typically at depths of 350 feet or greater. In the Northern Alluvium Area, only one screening level was developed based on the assumption that the entire 40 feet vadose zone thickness is impacted by perchlorate. In the Saugus Area, separate screening levels were developed for soil in the 0 to 40 feet depth range and soil in the 40 to 200 foot depth range. An additional screening level for soil in the 0 to 20 feet depth range in the Saugus Area was developed assuming that the perchlorate-impacted soil only extends to a depth of 20 feet.

Transport in the vadose zone was simulated using the 3DADE model developed by the U.S. Soil Salinity Laboratory. Groundwater transport was simulated using MODFLOW and MT3D, which were developed by the U.S. Geological Survey. These models were coupled in order to provide estimates of the maximum groundwater concentration at the property boundary for a given initial soil concentration in a 0.5 acre source zone. The property boundary was assumed to be 150 feet laterally from the source area for the Northern Alluvium scenario, 2,000 feet from the source area for the two shallow soil Saugus Area scenarios, and 3,000 feet from the source area for the deep soil Saugus Area scenario. These distances were selected as representative distances to the property boundary from impacted soil areas in the Northern Alluvium and Saugus Areas identified in the Site-Wide RI.

5.3.2 Use of Groundwater Protection SSLs as Remedial Goals

The preliminary soil and soil gas screening levels for perchlorate and VOCs for groundwater protection are presented in Tables 8a and 8b of Appendix E of the April 2007 ENVIRON report. Revised SSLs will be evaluated along with the other applicable RBTCs to develop the appropriate remedial goals for each area of the Site. Unless and until pilot testing proves otherwise, remediation of the deeper soils overlying the Saugus aquifer will not be technically and/or practically feasible, and the protection of the Saugus aquifer will be addressed through the operation of the western boundary groundwater containment system. Therefore, for the purposes of this RAP, only the Northern Alluvium SSL (along with surface water SSL discussed in the next section) will be used as a remedial goal. If the results of the pilot testing indicate that remediation of the deeper soils is technically and economically viable, then appropriate performance based remedial goals will be evaluated for use for the deeper soils. Areas of perchlorate and VOC impacts exceeding the Surface Water and Northern Alluvium preliminary SSLs are shown on Figures 5-1 and 5-2.

5.4 Perchlorate Screening Levels for Surface Water Protection

Soil screening levels for surface soil in the vicinity of Site drainages were developed to protect surface water quality based on a target concentration in surface water of 6 micrograms per liter ($\mu\text{g}/\text{L}$), the California MCL for perchlorate. Since perchlorate is highly soluble and does not adsorb significantly to soil, when precipitation falls on surface soils at a rate high enough to generate surface water run-off, perchlorate present in the surface soil will be easily dissolved and transported in the run-off water. In principle, any soil in the Site drainages with perchlorate above the detection limit of 20 $\mu\text{g}/\text{kg}$ could potentially cause the surface water run-off in contact with the soil to have perchlorate concentrations above the surface water target of 6 $\mu\text{g}/\text{L}$. Therefore, the soil screening level to protect surface water quality is set to the detection limit of 20 $\mu\text{g}/\text{kg}$ for surface soils within and adjacent to Site drainages. This is the same screening level presented in the Draft Surface Water Mitigation Feasibility

Study developed previously by ENVIRON³ and the OU1 Remedial Action Plan developed by CDM⁴.

A more detailed analysis of dilution in the drainages and intermittent streams on the Site may be performed in the future in order to refine the soil screening level. This analysis would require information about the future planned topography of the Site after development, planned ground surface cover, and artificial drainage systems planned as part of Site development. The resulting refined soil screening levels would likely be higher than 20 µg/kg as a result of the additional surface protection and surface water management provided as a result of Site development and would vary in different drainages across the Site.

5.5 Perchlorate Screening Levels for Protection of Ecological Receptors

ENVIRON developed soil and surface water screening levels for perchlorate for protection of ecological receptors (plant and animal species). Although limited, the state of scientific knowledge on the toxic effects of perchlorate to ecological receptors is expanding rapidly as new studies become available. ENVIRON reviewed studies previously evaluated by the USEPA and more recent studies released subsequent to the USEPA review to develop the perchlorate screening levels. These screening levels would be appropriate only for areas of the Site that remain undeveloped and that would provide suitable habitat for ecological receptors.

The many different types of plants and animals that are found at the Site complicate the development of cleanup numbers for ecological receptors. To address this issue, the ecological assessment identifies “the most sensitive species.” ENVIRON identified the most sensitive ecological species for soil as the California vole and the California quail. These receptors were selected based on the findings of the ecological risk assessment previously prepared by Knight Piésold for OU1E⁵. The screening levels developed for these species are 0.094 mg/kg for the California vole and 8.1 mg/kg for the California quail. These screening levels were derived using the same methodology as used in the ecological risk assessment for Operable Unit 1E; that methodology has been reviewed and approved by the DTSC.

ENVIRON also developed a screening level for protection of ecological receptors exposed to surface water in streams. ENVIRON identified the green frog as the most sensitive species and developed a cleanup value protective of short-term (acute) exposures. Water flow in streams at the Site is intermittent so that a cleanup level protective for short-term exposures is considered to be the most relevant.

³ ENVIRON. 2004. Draft Feasibility Study for Mitigation of Perchlorate in Surface Water Run-Off, Former Whittaker Bermite Facility, Santa Clarita, California. December 3.

⁴ CDM. 2005. Remedial Action Plan, Operable Unit 1 (OU1), Former Whittaker-Bermite Facility, Santa Clarita, California. Prepared for Whittaker Corporation. February 3.

⁵ Knight Piésold and Co. 2003. *Former Whittaker-Bermite Facility Remedial Investigation Report and Baseline Risk Assessment for OU1E*. February 28.

The screening level for protection of aquatic species is 24 g/L, a level significantly higher than the Public Health Goal of 6 µg/L.

The soil screening levels for ecological receptors are very conservative and will be used only for an initial ecological screening of the Site. If perchlorate concentrations in an area are less than the relevant screening level, no further evaluation is warranted. However, if perchlorate concentrations are greater than the screening level, then a more detailed ecological risk assessment may be warranted for that area. That is, an exceedance of the ecological screening levels does not necessarily trigger the need for remediation. Any areas requiring more detailed evaluation will be closely coordinated with DTSC.

As previously discussed with DTSC, it would be inefficient to develop screening levels for other COPCs at the Site at this time. In contrast to perchlorate, which is present in surface and near-surface soils (within the zero to five foot depth interval) in many areas of the Site, many of the other COPCs are present only in localized areas. Future development of the property is expected to include residential and commercial development and supporting infrastructure over much of the Site. Exposure of ecological receptors is not likely to occur in these areas simply due to lack of suitable habitat. Thus, many existing ecological areas which currently exceed screening levels would likely be either remediated or eliminated as a result of being in future development areas. Further, area use factors for the representative ecological receptors would vary greatly depending on the available habitat following development. Area use factors (and thus, exposure to COPCs) would be much larger if it were assumed that the Site were to remain undeveloped than if much of the Site were developed for residential and commercial use, reducing the area of suitable habitat for ecological species. Soil screening levels estimated assuming that the Site is developed would likely differ from those that would be estimated assuming the Site remains undeveloped.

The proposed approach for addressing potential ecological risks is to first screen COPCs based on spatial co-occurrence with areas that remain undeveloped. Screening levels will be developed for COPCs identified in these areas. Similar to the approach described for perchlorate, if COPC concentrations in an area are less than their screening level, no further evaluation is warranted. However, if concentrations are greater than the screening levels, then a more detailed ecological risk assessment may be warranted. This approach would be applied using the Geographic Information System (GIS) developed for the Site. The approach would include consideration of the spatial data on chemical impact and habitat at the Site and the Site development plan, in conjunction with approaches for estimating spatially-explicit exposure, such as Spatially-Explicit Exposure Model (SEEM) or RiskTrace™ software.

5.6 Summary

The preliminary soil RBTCs and SSLs were developed to address the multiple objectives that must be taken into account when making environmental management decisions for the Site. These objectives include protection of human health and the environment, with SSLs derived for protection of groundwater, surface water, and ecological receptors. For protection of human health, RBTCs were derived corresponding to the proposed future land-uses of the Site, including residential, commercial/industrial, recreational, and open-space areas.

Although a large number of chemicals were detected in soil samples, the results of the HHRA indicate that perchlorate is the major contributor to risks associated with potential exposures to soil. Perchlorate in soil is also the primary chemical of concern for protection of groundwater, surface water, and ecological receptors. For soil gas, the primary chemicals of concern are chlorinated solvents, with tetrachloroethene, trichloroethene, and vinyl chloride the main contributors to risks to human health. These chemicals are also of concern with respect to protection of groundwater.

Table 5-1 lists the preliminary RBTCs and SSLs derived for these primary chemicals of concern. The table identifies the derivation basis for each RBTC and SSL and the specific areas in which the RBTC (or SSL) would be applied. To use these screening levels in support of risk management decisions, screening levels applicable to a given area (taking into account likely future land use) would be selected as the basis for identifying a remedy.

For VOCs, areas with concentrations exceeding the revised SSLs or with cumulative cancer risks greater than 1×10^{-5} will be evaluated for remediation and/or risk management decisions and possible further evaluation. As discussed in this section, the RBTCs and SSLs will be refined in support of the risk management decisions. For areas identified for remediation, the relevant RBTCs and SSLs may serve as the preliminary remediation goals. This approach is discussed further in Section 7.

The SVE remedial actions will be implemented with the intent to reduce VOC concentrations below the remediation goals within the source areas. However, if residual VOC concentrations remain in excess of remediation goals once VOC reductions have reached asymptotic conditions, then the active remediation operations will be considered complete and engineered controls and/or land use restrictions may be implemented. Approximate areas of VOC impacts exceeding the RBTCs and SSLs are shown on Figure 5-2.

Detailed information on the derivation of the RBTCs and SSLs was presented in the ENVIRON report titled "*Derivation of Soil Screening Levels for the Protection of Human Health and the Environment*", which also includes RBTCs and SSLs for all COPCs identified for soil and soil gas and the corresponding risk management objectives. This document was reviewed and commented and subsequently finalized per DTSC's request.

Section 6

Summary and Evaluation of Remedial Alternatives

6.1 Remedial Alternatives Considered and Retained

As presented within the Site-Wide FS, several technologies were identified as potentially applicable to remediation of shallow soil at the Site (CDM, 2007). These technologies were combined into various remedial action alternatives that are expected to achieve varying degrees of Site cleanup at commensurately different costs. All alternatives presented below include the assumption that on-site groundwater containment will be conducted as part of the OU7 remedy and comprehensive Site remediation strategy. A work plan to install a pilot remediation well network for the Saugus aquifer has been reviewed and approved by DTSC. For the purpose of this RAP it is assumed that once a full-scale remediation well network plan has been implemented adequate groundwater containment will be achieved. It is also assumed that such groundwater containment measures will be identical for each alternative discussed below. As stated previously, the on-site groundwater containment activities will be conducted to prevent/limit off-site transport of chemicals from the Site. The context of the groundwater containment activities is significant for the comprehensive Site remediation strategy in that regardless of the degree of success of on-site source removal measures, mitigation and protection of groundwater resources will be achieved.

A comprehensive Site remediation strategy should also address the chemical impact to deep soils at certain areas of the Site. As stated above, a number of innovative technologies have been considered, including gaseous and liquid injection of amendments to promote in-situ biodegradation of chemicals in deep soils. These technologies will be tried on pilot scale in certain target areas to evaluate their success or failure under the actual Site conditions.

Ideally, this draft RAP would be prepared after implementation of the referenced pilot studies; however, to meet the overall schedule of the Site remediation as specified in the Order, the planning for and implementation of pilot study of the deep soil remediation will be performed on a parallel track with this RAP.

6.1.1 Alternative No. 1: No Action

Under the no action alternative, no active remedial efforts would be made to address the areas of concern in OU2 through OU6 and the contaminants of concern would be allowed to attenuate by natural processes such as dispersion and decay. Since this alternative will not be protective of human health and the environment, it is not considered a good candidate for implementation. The no action alternative, however, was included in the detailed evaluation process consistent with state and federal guidelines.

6.1.2 Alternative No. 2: SVE, Excavation, and Off-Site Disposal

SVE is a conventional treatment technology used for treating unsaturated soil contaminated with VOCs. It is not applicable to perchlorate remediation and, in general, is only applicable for VOC-impacted soils with moderate to high permeability including sands, gravels, and silty or clayey sands and gravels. Vapor extraction wells are installed typically in grid fashion to cover the impacted area in both the vertical and horizontal planes. Well spacing is based on soil type and/or pilot testing. The process works as follows: Vacuum pumps or blowers induce airflow through the soil matrix. The forced air strips the volatile compounds from the soil and draws contaminated vapors and moisture entrained in the soil-gas to a vapor-liquid separator. Separated water is pumped from the separator and routed to water-phase treatment unit processes. Typical water-phase treatment consists of aqueous phase carbon filtration or air stripping. The contaminated vapors are routed to vapor-phase-treatment unit process such as a vapor-phase carbon filtration or thermal oxidation. The air emissions and wastewater discharges are subject to SCAQMD and NPDES permit requirements, respectively, that include procedures and protocols for monitoring system performance and discharges. SVE operations typically continue until the processes monitoring results indicate that the point of diminishing returns has been reached. Verification soil gas and soil matrix samples are typically collected from appropriately placed borings to evaluate system performance.

For Alternative 2, SVE would be applied to address the soils within the 0 to 100 feet depth range for protection of human health through the vapor intrusion pathway. However, should the results of Site-specific risk evaluations conducted during the preparation of the RD determine that remedial efforts can be applied to a lesser depth and still be protective of human health, then the proposed depths of SVE operations will be adjusted accordingly. The potential application of SVE to greater depths in order to address SSLs is dependent upon successful pilot testing of SVE within the Saugus formation bedrock that is typically present at depth. The work plan for a pilot SVE program has been approved by DTSC and is being implemented.

Following the application of SVE to address the VOC impacts, soil impacted by other COPCs (e.g. perchlorate, metals, etc.) in the target remediation areas would be excavated and transported off site via truck for disposal at a licensed landfill with all associated loading taking place within the Site boundaries. The excavation process would include verification sampling of the sides and bottoms of the excavated areas to assure that soils meet the cleanup criteria. The excavated areas would be backfilled using certified-clean fill taken from other areas of the Site.

Under SCAQMD Rule 1166, excavation work is restricted if the emissions at the face of the excavation rise above certain threshold levels. Accordingly, under Alternative 2, SVE is considered a pre-treatment component of the excavation process for areas containing VOCs. If after initial treatment by SVE, the excavated soils still contains VOCs that will potentially off gas during the excavation and loading process,

the excavation is subject to additional SCAQMD Rule 1166 provisions that require that measures be taken during the excavation, screening, stockpiling, loading, and transporting to minimize off gassing. Such measures typically include: 1) continuous emissions monitoring during excavation, 2) the use of water trucks to keep the soils damp during excavation and loading, 3) immediately covering stockpiles with plastic sheeting, 4) immediately covering loaded soils with secured tarps, and 5) prohibiting work during periods of high winds. If the soils are to be screened, engineered emission control systems may be needed including the use of temporary structures with controlled/treated ventilation systems.

Only Class I or Class II landfills with liner systems are considered acceptable for soils containing perchlorate and HVOCs. Wastes must be profiled/analyzed for landfill acceptance either before or after they are excavated/stockpiled according to protocols established by the landfill permits.

In-situ bioremediation has not been tested at the Site to date and thus the design concepts presented will require validation through pilot testing. However, if pilot testing performed on deep soils results in successful treatment of perchlorate, and application is technically and economically viable, then in situ bioremediation will be further evaluated for potential implementation where applicable. For Alternative 2, in-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation.

6.1.3 Alternative No. 3: SVE, Ex-Situ Bioremediation, and Ex-Situ SVE or Chemical Oxidation

For Alternative No. 3, VOC impacted soils within the 0 to 100 feet depth range (or adjusted depth based on site-specific risk evaluations) would be addressed as previously discussed for Alternative 2. Following the application of SVE to address the VOC impacts, the perchlorate-impacted soils would be excavated and treated on Site via anaerobic bioremediation to allow for reuse rather than off-site disposal. Specific depths of excavation of impacted areas will be determined in the future remedial design document and will be considered within the context of the overall Site remediation strategy and Site development plans.

If the VOC concentrations of the excavated soils exceed SCAQMD thresholds, then an ex-situ SVE pre-treatment step would be implemented on stockpiled soils to bring VOC emissions down prior to bioremediation processing. This step alleviates potential problematic permitting and operational issues for the bioremediation process equipment.

Ex-situ soil bioremediation is a form of composting that has most commonly been used in the farming, livestock, and food-processing industries to handle bulky organic wastes. It is also finding application in municipal solid waste disposal/recycling systems. For these industrial and municipal applications it is typically conducted in enclosed systems such as engineered treatment cells, vertical digesters, or rotating

drum digesters and sometimes incorporates the generation and recovery of methane gas. The process involves the biological degradation or transformation of organic or inorganic compounds in the presence and/or absence of oxygen.

In a conventional aerobic composting system, oxygen is used by microorganisms for the oxidation of organic or inorganic compounds and is called an electron acceptor. The organic or inorganic compounds that are oxidized are called electron donors or substrates. In the absence of molecular oxygen, anaerobic bacteria use alternative electron acceptors such as nitrate and sulfate. Some COPCs at the Site, including perchlorate, TCE, and PCE, are also capable of acting as alternative electron acceptors and thus are amenable to treatment via anaerobic bioremediation.

Anaerobic composting will involve addition of water and amendments via pug mill and will require the screening of excavated soils to remove rocks/objects greater than two inches in diameter. Rocks greater than two inches would be crushed and then reintroduced into the soils for treatment. Alternatively, the rocks would be treated in a lined basin or tank containing water plus electron donor and nutrients, to promote leaching and anaerobic bioremediation. The raw soils, containing approximately five to ten percent by weight moisture or less are fed into the pug mill and combined with electron donor solution, nutrients, and optional perchlorate-reducing bacteria to achieve about 10 to 15 percent by weight moisture, which is very close to the field capacity and creates a damp mud containing the electron donor. The soil is then allowed to cure while anaerobic biodegradation of perchlorate occurs. As implemented for the OU1 soil remediation operations, soil is stored in one of two ways for the curing process as described below:

- Option A - amended soil is placed in concrete containment cells and covered with plastic sheeting. The concrete containment cells would be constructed on an asphalt pad with adequate containment and stormwater collection measures. Following perchlorate destruction and confirmation sampling, soil is removed from the containment cells and used as fill on site.
- Option B - amended soil is placed into patented elongated flexible plastic bags (EcoPOD® by Ag-Bag Environmental) with a typical soil storage capacity of approximately of 400 tons or 300 cubic yards. Following perchlorate destruction and confirmation sampling, soil is removed from the bags and used as fill on site.

This treatment method was successfully applied for the treatment of perchlorate-impacted soils in OU1. The process was refined during the OU1 soil remediation operation to fit the soil and other site-specific conditions. Based on the successful soil remediation operations for OU1, the concrete containment cell approach was demonstrated to be vastly superior to the Ag Bag approach from an operational and cost efficiency standpoint. The containment cell approach was selected as the preferred method, although the Ag Bag approach was maintained as a potential alternative or contingent approach.

In all cases, to allow for efficient front-end processing in cleaning up the impacted areas, the soil treatment plant would need to be set up for stockpiling contaminated soil on a fairly large-scale. This is due to the fact that it is grossly inefficient to excavate the source areas in piecemeal fashion. The plant site would be constructed over compacted sub grade or impermeable liner (grade sloping towards a sump) with curbing around the perimeter. The ex-situ composting operation will further require the construction of an engineered treatment-cell area where the inoculated waste can be cured.

Based on the success of the remedial efforts conducted in OU1, Alternative 3 is considered applicable to all shallow perchlorate-impacted soils present in OU2 through OU6. Preliminary testing has also demonstrated that bioremediation in combination with chemical oxidation can be used to treat soil containing both perchlorate and VOCs. Ex-situ chemical oxidation, using the same process equipment as the ex-situ bioremediation, could be used as a final VOC polishing step if residual VOC concentrations exceeding RBTCs and/or SSLs are present in the soil after the bioremediation step.

Similar to Alternative No. 2, in-situ bioremediation has not been tested at the Site to date and thus the design concepts presented will require validation through pilot testing. However, if pilot testing performed on deep soils results in successful treatment of perchlorate, and application is technically and economically viable, then in situ bioremediation will be further evaluated for potential implementation where applicable. For Alternative 3, in-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation.

6.2 Other Alternatives

During the initial screening process, the following source area remedial options were considered and rejected because of obvious technical impracticability with respect to shallow soil: in-situ thermal technologies; in-situ chemical oxidation; phytoremediation, and stabilization/solidification. In addition, some of the following technologies were considered and were found potentially applicable for protection of soil and groundwater quality under certain conditions and in conjunction with other remedial measures:

6.2.1 Capping

Capping involves the construction of an impermeable layer over the contaminated soil that serves to isolate the impacted areas thereby eliminating or mitigating some key transport pathways including: dermal contact; airborne particulate emissions (dust); upward vapor phase movement of volatile components; and downward or lateral movement of dissolved-phase COPCs via infiltration. Capping is typically conducted in conjunction with institutional controls and is most often used in the closure of municipal or industrial landfills. Since this RAP is restricted to impacted soils that are reasonably accessible to excavation in areas that could be slated for redevelopment, this remedial option is not considered to be well suited as a sole

practice for addressing shallow soil in OU2 through OU6. Placement of large amounts of fill over the areas with known deep soil impact during future Site development could provide a form of a “cap” for providing additional level of protection for human health, surface water, and ecological receptors. However, the fill material by itself would not likely provide adequate reduction of groundwater recharge through infiltration. Nonetheless, addition of other engineering measures, including proper diversion of storm water, restricting landscaping and irrigation to drought tolerant species, and placing large paved areas over deep soil impact areas could have a significant beneficial effect on groundwater protection. For these reasons, capping for soil was not retained as a standalone remedy, but surface water management/infiltration controls could be implemented as a component of the remediation strategy within the context of the groundwater remedy and in connection with future Site management and development planning where specific measures can be planned and implemented as part of the comprehensive strategy to eliminate and/or reduce recharge and infiltration at some areas.

6.2.2 Institutional Controls

Institutional controls typically involve the use of deed covenants that place restrictions on land use or restrict access. For example, deed covenants could limit the use of impacted areas to open space or industrial development, significantly influencing risk-based cleanup goals. Deed restrictions could also be used to establish building construction standards such as requiring slab venting systems to mitigate risks associated with the vapor intrusion pathway. In cases where it is not technically or economically feasible to remediate to risk-based soil cleanup goals, institutional land use controls are often the only viable option. While they do not actively reduce source area concentrations, they do serve to prevent unacceptable exposure to human or environmental receptors. Due to the uncertainty regarding planned future development, institutional controls were not considered a viable alternative for the remedy at this time. However, in the event that new redevelopment plans are finalized prior to the initiation of cleanup activities, such controls could become viable. This would be in conjunction with future Site management and development planning where specific measures can be planned and implemented. For example, areas that are zoned for commercial use could be deed restricted to disallow use for residential purposes.

6.2.3 Monitored Natural Attenuation

Monitored natural attenuation (MNA) is typically applied for groundwater after source removal and/or active remediation operations have ceased. MNA is not typically discussed with regard to soil, but may be relevant in the case of perchlorate. Perchlorate transport within the soil is dependent upon adequate water infiltration through the vadose zone to mobilize the perchlorate downward to the groundwater. The Site operations that were the driving force behind the perchlorate impacts to the soil and ultimately the groundwater have long since ceased. MNA for soil was not retained for the soil remedy, but could be re-evaluated as a future strategy within the context of the groundwater remedy and in connection with future Site management

and development planning where specific measures can be planned and implemented as part of the global strategy to eliminate and/or reduce recharge and infiltration at some areas.

6.2.4 Soil Washing

Based on a number of pilot studies that were performed at the Site and as part of the OU1 Feasibility Studies, soil washing was found to be partially successful; however, soil washing in the scale necessary for the Site soils requires very large volumes of water to achieve required treatment goals for perchlorate. Because of the challenges and constraints of handling large volumes of wash water, and due to success of anaerobic bioremediation in OU1, soil washing was eliminated from further consideration at the Site.

6.2.5 In-Situ Bioremediation Using Liquid Amendments

In situ bioremediation using liquid amendments was eliminated for consideration during the FS for use on a large-scale basis, due to issues associated with the depth of the vadose zone and concerns regarding mobilization of contaminants through flushing. However, in some areas of the Site where the depth to groundwater is relatively shallow (i.e. OU5 proximal to the northern alluvium), the technology may prove to be advantageous.

6.3 Selected Remedial Action Alternative

On the basis of the selection criteria summarized in the Site-Wide FS, the preferred alternative for remediation of OU2 through OU6 soils is Alternative 3, which comprises combination of in-situ SVE, shallow remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that still contain elevated VOC concentrations, and ex-situ biological treatment of perchlorate-impacted soils. Additionally, as discussed previously, in-situ bioremediation has not been tested at the Site to date and thus the design concepts presented will require validation through pilot testing. However, if pilot testing performed on deep soils results in successful treatment of perchlorate, and application is technically and economically viable, then in-situ bioremediation will be further evaluated for potential implementation where applicable. For the selected alternative, in-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation. Furthermore, it is anticipated that surface water management/infiltration controls will be implemented as part of any future Site redevelopment activities. Also, many of the potential source areas at the Site may receive substantial amounts of fill materials during the Site redevelopment grading activities, which will have a positive effect of reducing the exposure pathways and potential risk and provide an additional degree of groundwater protection. These measures along with the Northern Alluvium and Saugus aquifer groundwater containment systems will address the remedial objectives for protection of groundwater.

6.4 Munitions and Explosives of Concern

As discussed in Section 4.3 certain areas of the Site, which were historically utilized for production and testing of munitions as well as disposal, have been identified and are being investigated for potential presence of UXO/MEC items.

In accordance with the existing work plans, those areas identified with potential presence of UXO/MEC will be investigated and assessed through appropriate field screening and response techniques such as:

- Surface screening by hand held metal detecting instruments
- Clearance of vegetation and debris
- Surface soil scraping
- Anomaly response by geophysical survey
- Excavation of target anomalies
- Sifting/ separation of metallic debris from excavated soils
- Munitions debris disposal

Based on the finding of the UXO/MEC assessment, materials identified for containing MEC will be excavated, screened and removed concurrent with remediation of the chemical impact to soils within the landfill, where present. The remediation of soils with possible presence of UXO/MEC can be accomplished under the selected remedial alternative for chemically impacted soils. This coordinated approach allows sorting, removal, and appropriate management of any MEC items that may be present in the landfills.

A work plan and a work plan addendum to evaluate the potential presence of UXO/MEC items in certain areas of the Site that were identified through review of the historic operations and document have been prepared and submitted to DTSC (EODT, 2005, 2006, and 2009). Pending the results of the ongoing Site evaluations for UXO/MEC, the screening plant configuration and quality control procedures to detect and remove UXO/MEC will be provided to DTSC for review.

Section 7

Proposed Remedy

This section summarizes how the selected remedy would be applied to the various source areas at the Site. As discussed in Section 6, the selected remedial action alternative includes a combination of approaches and technologies to address the varied contamination at the Site that includes in-situ SVE, shallow remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment (metals, SVOCs, etc.), ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, ex-situ biological treatment of perchlorate-impacted soils, and in-situ biological treatment of perchlorate-impacted soils (pending successful field pilot testing). Figures 7-1 and 7-2 illustrate how the impacts and exposure and transport pathways are mitigated by the proposed remedy on the Site conceptual models.

The proposed remedy is a risk-based approach that is designed to address impacts to human health and the environment by targeting those areas that exceed the preliminary remedial goals established for the Site. Additionally, as discussed previously, some areas of the Site may not be suitable for unrestricted land use even after application of the remedy. These include portions of Areas 1, 1A-South, 4, 19, 27, 53/54/72, and 63 (OU2), Area 14 and 30 (OU3), Hula Bowl Canyon I (OU4), and Areas 2, 31/45, 33, and 48/49 (OU5), and are shown in Figure 7-3. The basis for this assumption is that even if the remedial efforts successfully reduce the current VOC concentrations by 90 percent, the residual VOC concentrations would likely exceed the levels considered safe for unrestricted land use. These areas may require post-remediation engineering and/or institutional controls and may only be suitable for commercial land use, recreational land use, or for open space.

Therefore, the remedial approach includes the contingency to apply institutional and/or engineering controls in the event that unrestricted land use levels are not technically and/or practically feasible. A matrix showing which of the preliminary remedial goals are exceeded by area under various potential land use scenarios is presented in Table 7-1.

Prior to implementation of the approved remedy, a soil management plan will be prepared as part the RD document to describe the management of excavated soil during Site development, including protocols to ensure that soil placed in a given area will meet the risk-based goals established for the specific land use in that area.

The remedial process will essentially be identical to the OU1 operations that were recently completed successfully and the infrastructure already in place at Treatment Pad Nos. 1, 2, and 3 could be utilized for part or all of the OU2-OU6 remediation operations, depending on the haul distances and routes involved.

The achievement of remedial goals will be confirmed through sampling and analysis and a post-remediation risk assessment will be prepared to demonstrate that residual

concentrations of chemicals do not pose an unacceptable risk to human health or the environment

The SVE operations are also anticipated to be similar to the OU1 operations in that multiple mobile SVE units are envisioned for the Site that could be moved from area to area as necessary. As previously discussed in Section 5, we recognize that for protection of human health, Cal/EPA generally considers an incremental risk of one in one million (1×10^{-6}) to be a point of departure for purposes of making risk management decisions, with most approved site closures for unrestricted land use achieving an incremental risk level of ten in one million (1×10^{-5}) or less and a hazard index of one or less, and that in some settings, a higher cancer risk level may be approved for commercial/industrial and recreational land use. Areas with VOC concentrations exceeding the refined, area-specific SSLs (as discussed in Section 5) or with cumulative cancer risks between 1×10^{-6} and 1×10^{-5} , or higher for the vapor intrusion pathway for the relevant land use may require remediation or may be identified for risk management decisions and possible further evaluation. While for the primary VOCs at the Site the RBTCs for the cancer endpoint are more stringent than those for the noncancer endpoint, in identifying areas for remediation and applicable cleanup goals, it will be confirmed that in achieving acceptable cancer risk levels, cumulative noncancer hazards are also addressed.

Components of the evaluation could include collection of additional soil vapor data and/or installation of permanent or semi-permanent vapor probes to monitor vapor concentrations over time. It is anticipated that only those areas with residual VOC concentrations significantly higher than the RBTCs (i.e., greater than one order of magnitude or for which cumulative risks are greater than goals established for the given land use) will be initially targeted for active in situ soil remediation. Areas with lower residual impacts will be addressed in different ways. Some of the soils with lower relative impacts (with cumulative cancer risk less between 1×10^{-6} and 1×10^{-5}) will likely be moved during redevelopment activities. Some of these soils may also be excavated concurrently to address other COPCs. These excavated VOC-impacted soils would be treated using ex-situ SVE and the residual VOC impacts left in place (if any) would be re-evaluated based on the endpoint land use and depth of residual impacts. For areas identified for remediation, the lesser of the relevant RBTCs or refined SSLs would serve as the preliminary remediation goals.

The SVE remedial actions will be implemented with the intent to reduce VOC concentrations below the remediation goals within the source areas. However, if residual VOC concentrations remain in excess of remediation goals once VOC reductions have reached asymptotic conditions, then the active remediation operations will be considered complete, and institutional and/or engineered controls may be implemented.

Additionally, there are several landfill areas that have been identified at the Site. Potential presence of unexploded ordnance (UXO) and munitions and explosives of concern (MEC) in some landfill areas requires additional level of attention to these

landfills. Pending screening of the areas with identified landfill debris for UXO and MEC, these areas may require excavation. The debris will be separated from the soils and disposed of off-site at an appropriate permitted facility, and the remaining sifted soils would be profiled and addressed along with other soils at the Site, depending on COPC concentrations.

For landfill areas not containing significant amounts of identified refuse and debris, it is expected that these soils would be treated as other areas of the Site, depending on detected COPC concentrations. Furthermore, some landfill areas do not have identified chemical impacts and may not require any remedial action.

7.1 Description of Proposed Remedy

A general discussion of the specific areas at the Site, exceedances of the preliminary RBTCs and/or SSLs, and the anticipated remedial measures is presented in the following sections. A matrix summarizing the proposed remedial approach for VOCs and perchlorate for the various areas of the Site is presented as Table 7-2.

7.1.1 OU1 Areas

VOCs

The VOC-impacted areas with OU1 (Area 7, Area 43, Area 55, and Building 329) have been or are being addressed as part of the ongoing remediation operations in OU1 and it is not expected that there will be any remaining VOC impacts requiring further remedial measures.

Perchlorate

The shallow perchlorate-impacted soils within OU1 have been excavated and treated via ex-situ bioremediation. However, elevated perchlorate concentrations in excess of the SSLs remain in the deeper soils that were beyond the reach of the OU1 remediation operations. These deeper perchlorate impacts may be addressed via in-situ bioremediation, if it can be concluded from the planned pilot testing that the innovative in-situ approaches are technically and economically viable.

7.1.2 OU2 Areas

There are twenty one areas within OU2 that exceed applicable RBTCs and/or SSLs (Area 1 [OU6], 1A-North, 1A-South, 4, 4/37, 6, 19, 22, 25, 27, 28, 34, 36, 37, 39, 53/54/72, 56, 56/58, 58, 63, and 74. Area 1 (OU6) will be discussed in Section 7.1.6. The remaining areas in OU2 either do not contain any chemical impacts or contain minor chemical impacts that don't exceed RBTCs or SSLs, and are already suitable for unrestricted land use.

VOCs

VOC concentrations exceed the sensitive-use RBTCs in Areas 1A-North, 1A-South, 4, 6, 19, 22, 27, 28, 34, 36, 37, 56, 56/58, 58, 53/54/72, and 63. VOC concentrations do not exceed the Saugus aquifer SSLs.

SVE operations are currently planned for Areas 1A-South, 4, 6, 19, 27, 34, 53/54/72, and 63. The initial phase of pilot studies for SVE operations at Areas 4, 27 and 53/54/72 have been completed and the data are being evaluated. The pilot study data will be used to evaluate the scope of the full-scale remedial operations. As discussed previously, the goal of the SVE operations will be to reduce VOC concentrations to unrestricted land use levels. However, the completion of the remedial measures will be performance based (i.e., once the VOC reductions have reached asymptotic conditions, then the SVE operations will be considered complete). In the event that the residual VOC concentrations exceed unrestricted land use levels after the SVE system has reached asymptotic conditions, then institutional and/or engineering controls will be implemented to address the residual risk. The depths to which SVE will be applied, which are based on the interpreted extent of VOC impacts exceeding the RBTCs and vapor intrusion guidance, are limited to depths within the upper 100 feet of soil. However, in Areas 4, and 53/54/72, where the VOC impacts extend beyond 100 feet and the proposed surface elevations specified by the Porta Bella Plan are lower than the existing surface elevation (i.e. future cut areas), evaluation of the vapor intrusion risks will extend to appropriate depths beyond 100 feet. Pending the outcome of those evaluations, the remedial efforts may also need to extend beyond 100 feet in order to meet the remedial objectives.

The VOC concentrations in the remaining areas are generally low (slightly above RBTCs) and implementation of SVE systems would be impractical. For the majority of these areas, which include 1A-North, 22, 28, 56, 56/58, and 58, soil excavations are currently planned to address perchlorate impacts that would also remove some of the VOC-impacted soils. These excavated soils would be initially treated via ex situ SVE to address the VOCs, prior to ex situ bioremediation to address the perchlorate. The residual VOC concentrations left in place would then be re-evaluated to assess whether any significant health risks remain that could require further action. For Area 36, which does not have co-mingled VOC and perchlorate impacts, the approach would be to re-evaluate the residual VOC impacts if future redevelopment plans indicate residential or commercial land use in this area.

The estimated depths, volumes, and mass of VOC impacts to be addressed for these areas are summarized in Table 7-3.

Perchlorate

Perchlorate concentrations exceed the home-gardener scenario RBTC for unrestricted land use in Areas 1A-North, 1A-South, 4/22, 4/37, 6, 19, 25, 27, 28, 34, 37, 53/54/72, 56/58, 58, 63, and 74. The proposed remedial action to address the human health risk issues is excavation of the upper ten feet of impacted soils and ex-situ bioremediation. However, in Areas 4/22, 25, 27, 28, 34, 37, 53/54/72, 56/58, 58, and 74, which are located in "future cut areas" as defined by the Porta Bella Plan, the excavations will need to extend to depths ranging from 20 to 40 feet. Area 1A North is also defined by the Porta Bella Plan as a "future cut area", but the perchlorate impacts are limited to the upper ten feet of soil, so there is no need to extend the depth of the remedial excavation.

The surface water SSLs are exceeded for the near surface soils in Areas 4/37, 6, 25, 34. The proposed remedial action to address surface water protection is excavation of the upper five feet of impacted soils and ex-situ bioremediation.

The Saugus aquifer SSLs are exceeded in Areas 1A-North, 1A-South, 4/22, 4/37, 6, 19, 25, 27, 28, 34, 53/54/72, 56/58, 58, 63, and 74. At the current time, there is no viable remedial alternative to address deep soil sources. Therefore, the default remedy for protection of the Saugus aquifer will be the western boundary Saugus aquifer containment system and other protective and/or institutional control measures discussed in Sections 6.2.1 and 6.2.2 of this RAP. If it can be concluded from the planned pilot testing that the innovative in-situ approaches are technically and economically viable for the deep zone soils, then the approach regarding soils with perchlorate concentrations exceeding the Saugus aquifer SSLs will be re-evaluated.

The estimated depths, volumes, and mass of perchlorate impacts to be addressed for these areas are summarized in Table 7-3.

SVOCs

PAH concentrations exceed the sensitive-use RBTCs for unrestricted land use in Area 27. The proposed remedial action is excavation of the upper four feet of impacted soil and off-site disposal. Although Area 27 is defined by the Porta Bella Plan as a "cut area", the PAH impacts are limited to the upper 4 feet of soil, so there is no need to extend the depth of the remedial excavation.

The estimated depth, volume, and mass of PAH-impacted soils to be handled for Area 27 are summarized in Table 7-3.

Metals

Metals concentrations do not exceed the sensitive-use RBTCs for near surface soils in the upper ten feet for unrestricted land use. Therefore, no remedial actions are necessary to address these RBTCs.

TPH

TPH concentrations exceed the sensitive-use RBTC for the unrestricted land use in Area 39. The proposed remedial action is excavation of the upper ten feet of impacted soil and off-site disposal. Although Area 39 is defined by the Porta Bella Plan as a "cut area", the TPH impacts are limited to the upper ten feet of soil, so there is no need to extend the depth of the remedial excavation.

The estimated depth, volume, and mass of TPH-impacted soils to be handled for Area 39 are summarized in Table 7-3.

Landfills

Although several areas within OU2 were reported to have received waste materials during historical Site operations, the borings and trenches excavated during the RI did not reveal the presence of any bulk waste materials, debris or other evidence

landfill materials, with the exception of minor isolated occurrences. Pending further screening of these areas for UXO and MEC, no remedial actions regarding removal of landfill materials is anticipated for OU2.

7.1.3 OU3 Areas

There are three areas within OU3 that exceed applicable RBTCs and/or SSLs (Area 14, 17, and 30). The remaining areas in OU3 either do not contain any chemical impacts or contain minor chemical impacts that do not exceed RBTCs or SSLs, and are already suitable for unrestricted land use.

VOCs

VOC concentrations exceed the sensitive-use RBTCs for unrestricted land use in Areas 14, 17, and 30. VOC concentrations do not exceed the Saugus aquifer SSLs, except for Area 14.

SVE operations are currently planned for Areas 14, 17, and 30. A pilot study for SVE operations at Area 14 is currently underway. The pilot study data will be used to evaluate the scope of the full-scale remedial operations. If any of the areas are excavated to address other COPCs, then ex situ SVE can be applied for excavated VOC-impacted soils. As discussed previously, the goal of the SVE operations will be to reduce VOC concentrations to unrestricted land use levels. However, the completion of the remedial measures will be performance based (i.e., once the VOC reductions have reached asymptotic conditions, then the SVE operations will be considered complete). In the event that the residual VOC concentrations exceed unrestricted land use levels after the SVE system has reached asymptotic conditions, then institutional and/or engineering controls will be implemented to address the residual risk. The depths to which SVE will be applied, which are based on the interpreted extent of VOC impacts that exceed the RBTCs and vapor intrusion guidance, are limited to depths within the upper 100 feet of soil. The VOC-impacted areas in OU3 are not situated within "future cut areas" as defined by the Porta Bella Plan, so none of the proposed SVE applications would potentially need to extend to depths greater than 100 feet.

The estimated depth, volume, and mass of VOC impacts to be addressed for each of the areas are summarized in Table 7-3.

Perchlorate

Perchlorate concentrations exceed the home-gardener scenario RBTC for unrestricted land use in Areas 14 and 17. The proposed remedial action to address the human health risk issues is excavation of the upper ten feet of impacted soils and ex-situ bioremediation. The perchlorate-impacted areas in OU3 are not situated within "future cut areas" as defined by the Porta Bella Plan, so none of the proposed remedial excavations would need to extend to depths greater than 10 feet. The surface water SSLs are exceeded for the near surface soils in Area 14. The proposed remedial action to address the surface water issue is excavation of the upper five feet of impacted soils and ex-situ bioremediation.

The Saugus aquifer SSLs are exceeded in Area 14 and 17. At the current time, there is no viable remedial alternative to address deep soil sources. However, protection of the Saugus aquifer from the residual chemicals in deep soils in this area will be achieved through establishment of the western boundary Saugus aquifer containment system and other protective and/or institutional control measures discussed in Sections 6.2.1 and 6.2.2 of this RAP. If it can be concluded from the planned pilot testing that the innovative in-situ approaches are technically and economically viable for the deep zone soils, then the approach regarding soils with perchlorate concentrations exceeding the Saugus aquifer SSLs will be re-evaluated.

The estimated depth, volume, and mass of perchlorate impacts to be addressed for each of the areas are summarized in Table 7-3.

SVOCs

There is one area within OU3 (Area 14) where SVOC concentrations in shallow soils exceed the sensitive-use RBTCs and/or the additive risk from SVOC concentrations resulted in a cumulative cancer risk exceeding 1×10^{-6} . In the southern portion of Area 14, TCDD concentrations in one sampling location exceeded the sensitive use RBTC. Additionally, in a nearby sampling location, 2,4-dinitrotoluene and N-Nitrosodi-n-propylamine (NDPA) concentrations exceeded the sensitive use RBTCs.

In the central portion of Area 14, hexachlorobenzene concentrations exceeded the sensitive use RBTC at one sampling location. Additionally, in a nearby sampling location, TCDD concentrations exceeded the sensitive use RBTC.

In the northern portion of Area 14, the concentrations of TCDD and arsenic in one sampling location resulted in a cumulative cancer risk of 2.8×10^{-4} .

The areas of SVOC impacts within Area 14 are comingled with perchlorate-impacted soils that are more extensive than the SVOC impacts. The proposed remedial action is to segregate the SVOC-impacted soils during the perchlorate excavation activities and transport the SVOC-impacted soils off-site for disposal.

The estimated depths, volumes, and mass of SVOC-impacted soils to be handled for Area 14 are summarized in Table 7-3.

Metals

There is one area within OU3 (Area 14) where metals (lead, copper, cadmium, and thallium) concentrations exceed the sensitive-use RBTC and/or the additive risk from metals concentrations resulted in a Hazard Index greater than 1.

The areas of metals impacts within Area 14 are comingled with perchlorate-impacted soils that are more extensive than the areas with metals impacts. The proposed remedial action is to segregate the metals-impacted soils during the excavation activities and transport the metals-impacted soils off-site for disposal. The estimated depth, volume, and mass of metals-impacted soils to be handled in Area 14 is summarized in Table 7-3.

Landfills

The East Fork Landfill (Area 17) was reported to have accepted non-hazardous solid waste generated from the Site operations between approximately 1965 and 1986. During the RI, fill was encountered at 23 sample locations and the depth of fill throughout Area 17 ranges from 1 to 36 feet. Based on the RI results, it was estimated that Area 17 contains approximately 66,000 cubic yards of fill material. Trash and debris were encountered in the fill material observed in all of the trenches excavated in Area 17 including: asphalt, metal, wood, plastic, paper, glass bottles, drink cans, food cans, wire, cable, clothing, rope, styrofoam, cardboard, roots, and brush. Pending further screening of Area 17 for UXO and MEC, no remedial actions regarding removal of landfill materials is anticipated for OU3, aside from addressing fill soils with residual perchlorate and VOC impacts discussed previously.

7.1.4 OU4 Areas

There are four areas within OU4 that exceed applicable RBTCs and/or SSLs (Hula Bowl Canyons I, II, and IV, and Area 16A [stockpiled soils removed from Hula Bowl Canyon IV]). The remaining areas in OU4 either do not contain any chemical impacts or contain minor chemical impacts that do not exceed RBTCs or SSLs, and are already suitable for unrestricted land use.

VOCs

VOC concentrations exceed the sensitive-use RBTCs for unrestricted land use in Hula Bowl Canyons I, II, and IV. VOC concentrations also exceed Saugus aquifer SSLs in Hula Bowl Canyon I.

SVE operations are currently planned for Hula Bowl Canyon I. The initial phase of the pilot study for SVE operations at Hula Bowl Canyon I has been completed and the data are being evaluated. The pilot study data will be used to evaluate the scope of the full-scale remedial operations. As discussed previously, the goal of the SVE operations will be to reduce VOC concentrations to unrestricted land use levels. However, the completion of the remedial measures will be performance based (i.e., once the VOC reductions have reached asymptotic conditions, then the SVE operations will be considered complete). In the event that the residual VOC concentrations exceed unrestricted land use levels after the SVE system has reached asymptotic conditions, then institutional and/or engineering controls will be implemented to address the residual risk. The depths to which SVE will be applied, which are based on the interpreted extent of VOC impacts exceeding the RBTCs and vapor intrusion guidance, are limited to depths within the upper 100 feet of soil.

However, in Hula Bowl Canyon I, which is located within a “cut area” as defined by the Porta Bella Plan, and the VOC impacts extend beyond 100 feet, evaluation of the vapor intrusion risks will extend to appropriate depths beyond 100 feet. Pending the outcome of those evaluations, the remedial efforts may also need to extend beyond 100 feet in order to meet the remedial objectives.

For Hula Bowl Canyons II and IV, the VOC concentrations are low (slightly above RBTCs) and implementation of SVE systems would be impractical. For these areas, the approach would be to re-evaluate the residual VOC impacts if future redevelopment plans indicate residential or commercial land use in this area.

The estimated depths, volumes, and mass of VOCs to be addressed for these areas are summarized in Table 7-3.

Perchlorate

Perchlorate concentrations exceed the home-gardener scenario RBTC for unrestricted land use in Hula Bowl Canyon I and Area 16A (soils stockpiled from Hula Bowl Canyon IV screening demonstration). The proposed remedial action to address the human health risk issues is excavation of the upper ten feet of impacted soils and ex-situ bioremediation. Although Hula Bowl Canyon I is located in a “cut area” as defined by the Porta Bella Plan, the perchlorate impacts are limited to the upper 5 feet of soil, so there is no need to extend the depth of the remedial excavation.

The surface water SSLs are exceeded for the near surface soils in Hula Bowl Canyon I and Area 16A. The proposed remedial action to address the surface water issue is excavation of the upper 5 feet of impacted soils in Hula Bowl Canyon I and removal of the impacted soil stockpiles in Area 16A, and ex-situ bioremediation.

The Saugus aquifer SSLs are exceeded in Area 16A. The proposed remedial action to address protection of the Saugus aquifer is removal of the stockpiles and ex-situ bioremediation.

The estimated depths, volume and mass of perchlorate impacted soils to be handled for these areas are summarized in Table 7-3.

SVOCs

There were no areas within OU4 that had SVOC concentrations in excess of the RBTCs or SSLs.

Metals

There is one area within OU4 (Hula Bowl Canyon I) where lead concentrations exceed the sensitive-use RBTC. Additionally, the combined risks from antimony, arsenic, barium, cadmium, and copper result in a Hazard Index (14) that is substantially higher than the generally accepted level of 1. The proposed remedial action to address the metals issues is excavation of the upper ten feet of impacted soil in Hula Bowl

Canyon I and off-site disposal. The estimated depth, volume and mass of metals-impacted soils to be handled for this area are summarized in Table 7-3.

Landfills

Hula Bowl Canyons I, II, III, and IV (Area 16) were all reported to have accepted non-hazardous solid waste generated from the Site operations. Based on the RI results, it was estimated that Hula Bowl Canyon I contains approximately 30,000 cubic yards of fill material; Hula Bowl Canyon II contains approximately 5,000 cubic yards of fill material; and Hula Bowl Canyon III contains approximately 2,500 cubic yards of fill material. Hula Bowl Canyon IV, which was excavated and screened as part of an USACE Technologies Demonstration project, previously contained approximately 8,100 cubic yards of fill material. Approximately 2,800 cubic yards of screened soil remains stockpiled at the head of the canyon. Trash and debris were encountered in the fill material observed in Hula Bowl Canyons I, II, and III including: metal, wood, plastic, paper, cans, glass, nails, tires, fire hose, chain link fence, porcelain, styrofoam, appliances, drums, and other miscellaneous trash items. Pending further screening for UXO and MEC, no remedial actions regarding removal of landfill materials for Hula Bowl Canyons I, II, and III are anticipated for OU4, aside from addressing the soils with residual perchlorate, VOC, and/or metals impacts discussed previously.

7.1.5 OU5 Areas

There are twenty three areas within OU5 that exceed applicable RBTCs and/or SSLs (Areas 2, 10, 11/29, 12, 13, 18, 20, 21, 31/45, 33, 38, 41, 46, 47, 48/ 49, 50, 51, 52, 60, 61, 67, 68, and 69).). The remaining areas in OU5 either do not contain any chemical impacts or contain minor chemical impacts that don't exceed RBTCs or SSLs, and are already suitable for unrestricted land use.

VOCs

VOC concentrations exceed the sensitive-use RBTCs in Areas 2, 13, 18, 20, 31/45, 33, and 48/49. VOC concentrations also exceed the Northern Alluvium SSLs in Areas 18 and 48/49.

SVE operations are currently planned for Areas 2, 31/45, 33, and Area 48/49. The initial phase of the pilot studies for SVE operations at Area 2 and 31/45 have been completed and the data are being evaluated. A pilot study for SVE operations at 48/49 is currently in the planning stages. DPE is also being evaluated for Area 48/49. The pilot study data will be used to evaluate the scope of the full-scale remedial operations. As discussed previously, the goal of the SVE operations will be to reduce VOC concentrations to unrestricted land use levels. However, the completion of the remedial measures will be performance based (i.e., once the VOC reductions have reached asymptotic conditions, then the SVE operations will be considered complete).). In the event that the residual VOC concentrations exceed unrestricted land use levels after the SVE system has reached asymptotic conditions, then institutional and/or engineering controls will be implemented to address the residual

risk. The depths to which SVE will be applied, which are based on the interpreted extent of VOC impacts exceeding the RBTCs and vapor intrusion guidance, are limited to depths within the upper 100 feet of soil. However, in Area 2, which is located in a “cut area” as defined by the Porta Bella Plan and the VOC impacts extend beyond 100 feet, evaluation of the vapor intrusion risks will extend to appropriate depths beyond 100 feet. Pending the outcome of those evaluations, the remedial efforts may also need to extend beyond 100 feet in order to meet the remedial objectives.

The VOC concentrations in the remaining areas are generally low (slightly above RBTCs) and implementation of SVE systems would be impractical. For Area 13, soil excavations are currently planned to address perchlorate impacts that would also remove some of the VOC-impacted soils. These excavated soils would be initially treated via ex situ SVE to address the VOCs, prior to ex situ bioremediation to address the perchlorate. The residual VOC concentrations remaining in place would be re-evaluated to assess whether any significant health risks remain that could require further action.

For Area 20, which does not have co-mingled VOC and perchlorate impacts, the approach would be to re-evaluate the residual VOC impacts if future redevelopment plans indicate residential or commercial land use in this area.

The estimated depths, volumes, and mass of VOCs to be addressed are summarized in Table 7-3.

Perchlorate

Perchlorate concentrations exceed the home-gardener scenario RBTC for unrestricted land use in Areas 2, 10, 11/29, 12, 13, 18, 21, 41, 46, 50, 51, 61, 67, 68, and 69. The proposed remedial action to address the human health risk issues is excavation of the upper ten feet of impacted soils and ex-situ bioremediation. However, in Area 21, which is defined by the Porta Bella Plan as a “cut area”, the excavations will need to extend to a depth of approximately 20 feet.

The surface water SSLs are exceeded for the near surface soils in Areas 2, 10, 11/29, 12, 21, 31/45, 33, 38, 41, 46, 50, 51, 52, 60, 61, 67, 68, and 69. The proposed remedial action to address the surface water issue is excavation of the upper five feet of impacted soils and ex-situ bioremediation.

The Northern Alluvium SSLs are exceeded in Areas 10, 11/29, 12, 18, 31/45, 38, 41, 48/49, 50, 51, 52, 60, 61, 67, 68, and 69. The proposed remedial action to address protection of the Northern Alluvium aquifer is excavation of the impacted soils to either the water table or practical limits (whichever is reached first) and ex-situ bioremediation.

The estimated depth, volume, and mass of perchlorate impacted soils to be handled for these areas are summarized in Table 7-3.

SVOCs

There is one area within OU5 (Area 11/29) where SVOC concentrations exceed the sensitive-use RBTC and/or the additive risk from SVOC concentrations resulted in a cumulative cancer risk greater than 1×10^{-6} .

The proposed remedial action to address the SVOC issues is excavation of the upper five feet of impacted soil and off-site disposal.

The estimated depth, volume, and mass of SVOC-impacted soils to be handled for Area 11/29 are summarized in Table 7-3.

Metals

There are four areas within OU5 where metals concentrations exceed sensitive-use RBTCs: Area 11/29, Area 38, Area 47, and 69. There were several other areas with OU5 where metals were detected at concentrations notably higher than background levels: Areas 8, 20, 21, 24, 41, 50, 51, and 60. However, for these areas, only the additive risk from the metals concentrations in Area 21 resulted in a hazard index greater than one.

The proposed remedial action to address the metals issues is excavation of the upper ten feet of impacted soil and off-site disposal.

The estimated depth, volume, and mass of metals-impacted soils to be handled for these areas are summarized in Table 7-3.

TPH

TPH concentrations exceed the sensitive-use RBTCs in Area 51. The proposed remedial action is excavation of the upper ten feet of impacted soil and off-site disposal. The estimated depth, volume, and mass of TPH-impacted soils to be handled for Area 51 are summarized in Table 7-3.

Landfills

Area 2 was reported to have been operated as a small landfill for a variety of non-hazardous solid wastes generated from the Site operations prior to 1970. Additionally, landfill trash and debris deposits were discovered at Areas 11 and 51 during the RI. Pending further screening for UXO and MEC, no remedial actions regarding removal of landfill materials are anticipated for OU5, aside from addressing fill soils with residual perchlorate, VOC, and/or metals impacts in Areas 2, 11, and 51 discussed previously.

7.1.6 OU6 (RCRA Unit)

OU6, which is also designated as Area 1 is the only RCRA unit at the Site that has not been closed. It is located entirely within OU2. OU6 and is associated with the former Building 317 surface impoundment. Previous closure activities for Area 1 included:

- Excavation and removal of the former surface impoundment.

- Excavation of between 50,000 and 60,000 cubic yards of impacted soils to a depth of approximately 60 feet.
- Operation of an SVE system from 1988 through 2002, during which time approximately 40,000 pounds of VOCs were extracted and treated.
- Ongoing quarterly groundwater monitoring of Saugus aquifer monitoring wells since 1988.

Based on the results of both the soil and groundwater RIs, the following conclusions have been made regarding Area 1:

- Releases from the former non-RCRA surface impoundment have impacted soil, soil gas, and perched water. The extents of the impacts have been adequately characterized.
- The primary COPCs at Area 1 are perchlorate and TCE.
- Groundwater within the Saugus formation directly beneath Area 1 has not been impacted.
- Past lateral “stair step” transport pathways from the perched water zone through the upper portion of the Saugus formation to the northwest of Area 1 occurred when the former non-RCRA impoundment provided an ongoing source of recharge water to the perched zone. Monitoring wells completed within the upper portion of the Saugus formation are currently dry, indicating that the past transport pathways are no longer active under the current recharge conditions. Past Area 1 releases to the regional Saugus aquifer northwest of Area 1 are likely comingled with releases from other areas that are not regulated by RCRA.

VOCs

VOC concentrations exceed the sensitive-use RBTCs for unrestricted land use, as well as the Saugus aquifer SSLs.

SVE operations are currently planned for Area 1. Although SVE operations were previously conducted at Area 1, and limited pilot studies were previously conducted during the RI, additional pilot studies may be warranted to optimize VOC mass removal efforts. The depths to which SVE will be applied, which are based on the interpreted extent of VOC impacts that exceed the RBTCs and vapor intrusion guidance, are limited to depths within the upper 100 feet of soil. The VOC-impacted area in Area 1 is not situated within a “cut area” as defined by the Porta Bella Plan, so the proposed SVE application would not need to potentially extend to depths greater than 100 feet.

The estimated depth, volume, and mass of VOCs to be addressed for Area 1 are summarized in Table 7-3.

Perchlorate

Perchlorate-impacted soils were previously excavated to depths extending to approximately 60 feet. Therefore, no further remedial actions are necessary to protect human health from perchlorate impacts.

The surface water SSLs are exceeded for the near surface soils in Area 1. However, Area 1 has already been excavated to practical limits, so no further excavation would be conducted to address the surface water SSL; instead, surface water quality protection measures will be incorporated into the post-closure activities of the RCRA unit.

The Saugus aquifer SSLs are exceeded in Area 1. At the current time, there is no viable remedial alternative to address deep soil sources. Therefore, the default remedy for protection of the Saugus aquifer will be the western boundary Saugus aquifer containment system and other protective and/or institutional control measures discussed in Sections 6.2.1 and 6.2.2 of this RAP. If it can be concluded from the planned pilot testing that the innovative in-situ approaches are practicable for the deep zone soils, then the approach regarding soils with perchlorate concentrations exceeding the Saugus aquifer SSLs will be re-evaluated.

SVOCs

There were no SVOC concentrations detected in excess of the RBTCs or SSLs for Area 1.

Metals

There were no metals concentrations detected in excess of the RBTCs or SSLs for Area 1.

RCRA Issues

The goal of the remedial actions planned for Area 1 is "clean closure" of the RCRA unit. This goal is currently being evaluated along with the alternative of "waste in place" closure in view of the schedule for the planned pilot studies. Once an option is selected, it will be submitted to DTSC for approval in a separate document.

7.2 Rationale for Selection of Remedy

The primary rationale for the selection of the remedy was that it utilizes proven risk-based cost-effective soil remedial measures that have been evaluated and selected based on their ability to effectively address:

- Protection of human health from exposure to chemicals in surface and near-surface soils;
- Protection of ecological receptors from exposure to chemicals in surface and near-surface soils;
- Protection of surface water quality;

- Protection of groundwater quality;
- Protection of downgradient receptors (public supply wells); and
- Overall compliance with regulatory requirements.

Although the goal of the remedies that have been developed as part of this RAP are to achieve unrestricted land use goals, they are intended to be kept flexible so that they can be modified to allow for integration of the remedial measures with future Site redevelopment and grading operations, should a new redevelopment plan be in place at the time of cleanup. Any Site redevelopment would include mass grading operations that would likely involve moving a substantial volume of soil with significant cut and fill areas due to the current Site topography. Additionally, any Site redevelopment plans would likely consist of a combination of residential, commercial/retail, recreational, and open space land use, each of which would have specific risk exposure tolerance limits and, hence, corresponding target cleanup goals.

The remedies presented in this RAP were also selected in consideration of the overall comprehensive remedial strategy that encompasses all measures necessary to address both shallow and deeper impacted soils as well as groundwater containment remedies for the Site. Although the remedies do not include any specifics regarding the groundwater remedial alternatives, they have been prepared within the context of conducting adequate on-site groundwater containment activities to prevent/limit offsite movement of chemicals from the Site, while reducing on-site groundwater chemical mass. As previously stated, the groundwater containment efforts consist of the following elements:

- Northern alluvium containment system (OU5) – There is an operating system that currently extracts and treats approximately 60 gallons per minute (gpm) of groundwater, and is permitted for up to 100 gpm.
- On-site Saugus formation containment (OU7) – This system is in the planning stages and a pilot study work plan was reviewed and approved by DTSC in December 2008 and is currently being implemented. The purpose of the Saugus aquifer containment pilot work is to install the initial wells, conduct pumping tests, and perform groundwater modeling to develop the design criteria for the full-scale Saugus groundwater containment system. It is expected that the full-scale system will extract and treat approximately 300 to 500 gpm.
- Off-site containment at the Saugus 1 and Saugus 2 Production Wells – This system, which is in construction and is expected to be on line in 2010, will contain and remediate impacted groundwater within its capture zone, while protecting other water supply wells downgradient of the Saugus 1 and 2 wells.

This context is significant, and a comprehensive approach for shallow and deeper soil remediation and groundwater containment and treatment is necessary because there is a significant uncertainty regarding the practicability of a remedial alternative for deep perchlorate impacted soils at this Site. However, regardless of the degree of success of on-site source removal measures for deep soils, mitigation and protection of groundwater resources will be achieved. The OU7 FS and RAP will address both perched groundwater and deeper groundwater at the Site.

7.3 Timeframes for Remedy Implementation

The overall objective of the cleanup program at the Whittaker Bermite site is to implement effective remedies that will make the conditions of the Site protective of human health and the environment. Regardless of the uncertainties related to the outcome of various pilot programs and future redevelopment, a number of remedial activities are currently in varying stages of implementation. The current schedule prioritizes risks that if not addressed immediately, may pose an adverse impact to human health or the environment.

The following actions are in progress:

- Storm water management (ongoing);
- DU removal in Areas 57 and 14 (expected to be completed summer 2010); and
- MEC and UXO screening (expected to be completed 2011-2012).

The current schedule also includes the following pilot studies (in varying stages of implementation):

- Pilot testing of SVE systems at the source areas that have sufficiently high concentrations that the remedial excavations for perchlorate or other COPC impacts could not take place until the VOC levels have been substantially lowered (completed);
- Bench testing of in-situ biological treatment of deeper perchlorate impacted soils (ongoing); and
- Pilot testing of technologies for treatment of perchlorate and VOC-impacted perched water zones (planning). Pilot testing of groundwater containment with the Saugus aquifer along the western property boundary (well installation is ongoing).

The current schedule anticipates the following will occur in the near future:

- Dual Phase Extraction pilot studies in OU5 to address VOC hot spots;
- SVE in areas OU2-6 in anticipation of soil treatment for perchlorate-impacted soil;

- Completion of OU 7 containment pilot program; and
- Removal and screening of landfill areas that have either MEC/UXO and/or chemical contamination issues.

The approach taken in this RAP retains sufficient flexibility to apply risk-based cleanup goals under varying development scenarios, and ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated grades and uses.

Section 8

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Section 9 Figures

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9-1

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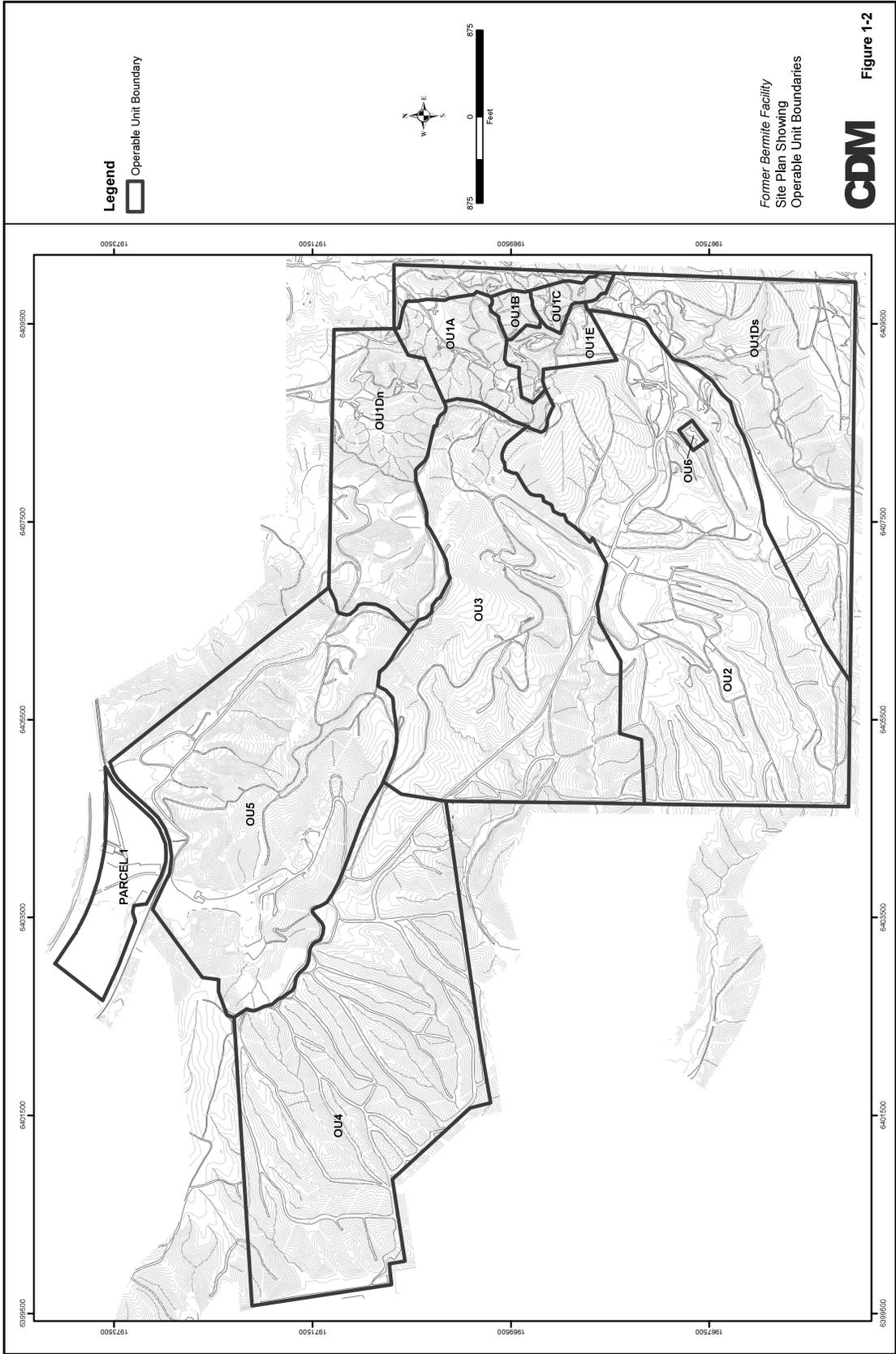
Legend

— Operable Unit Boundary



Former Bermite Facility
Site Vicinity Map

Figure 1-1



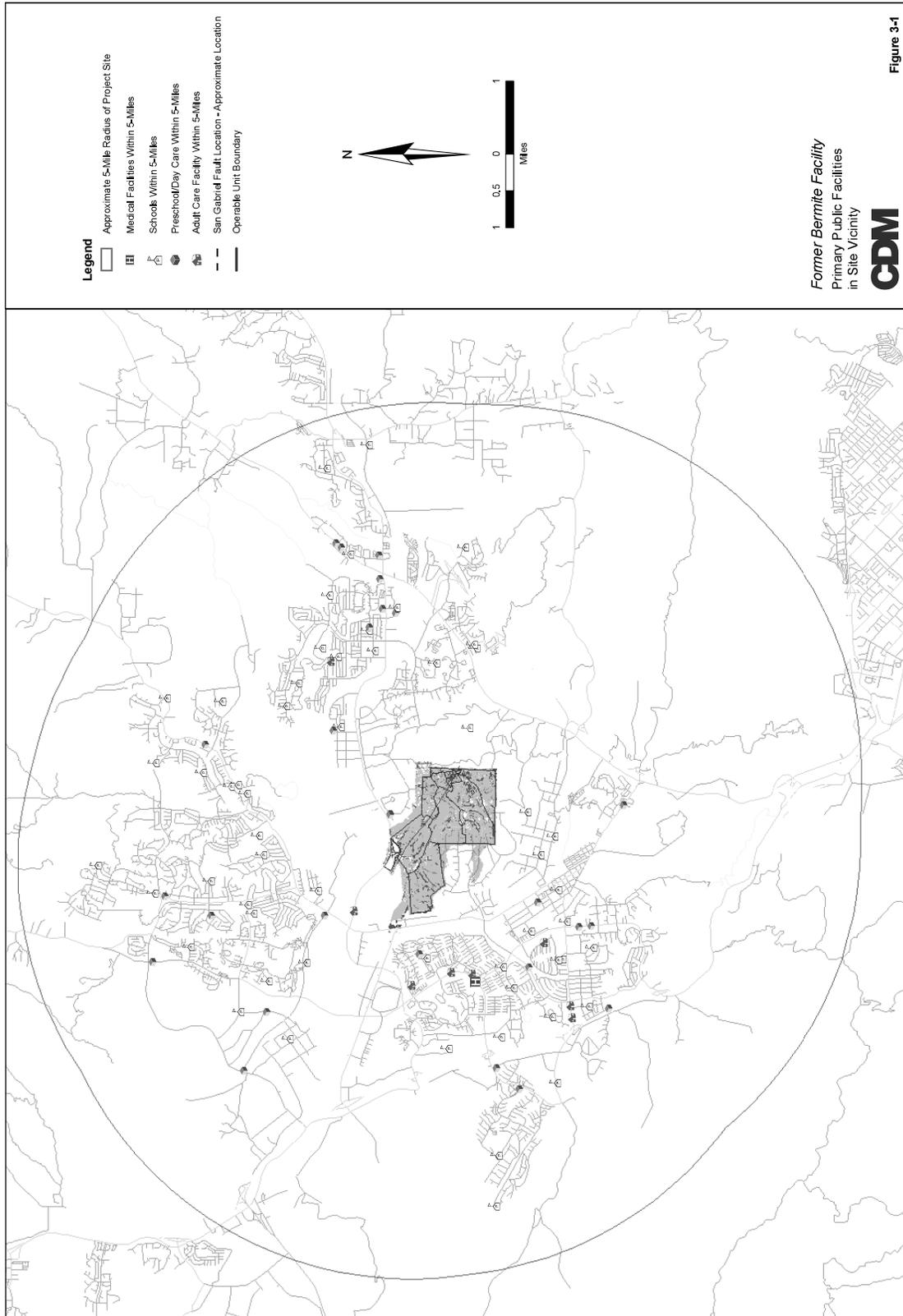
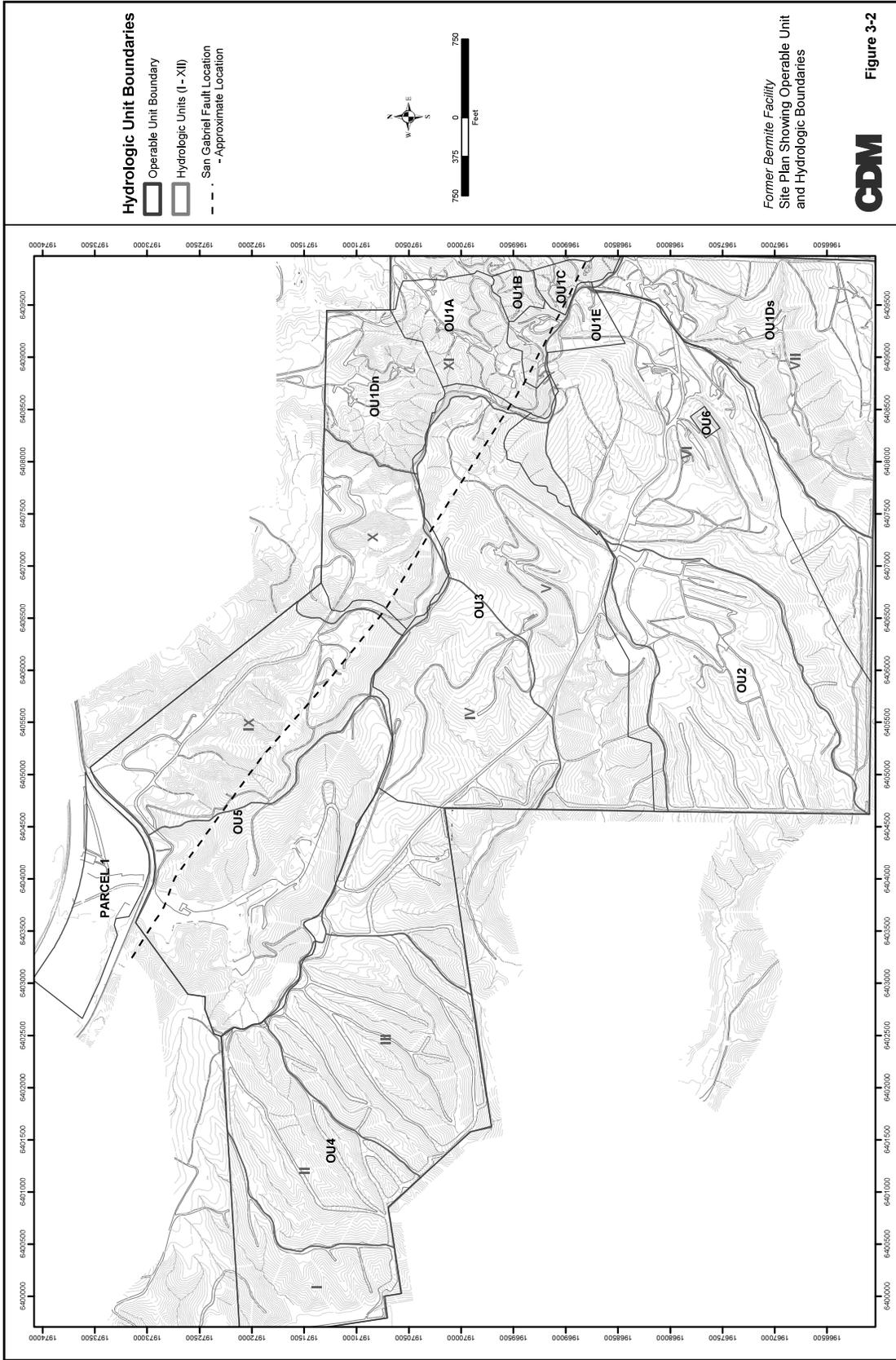
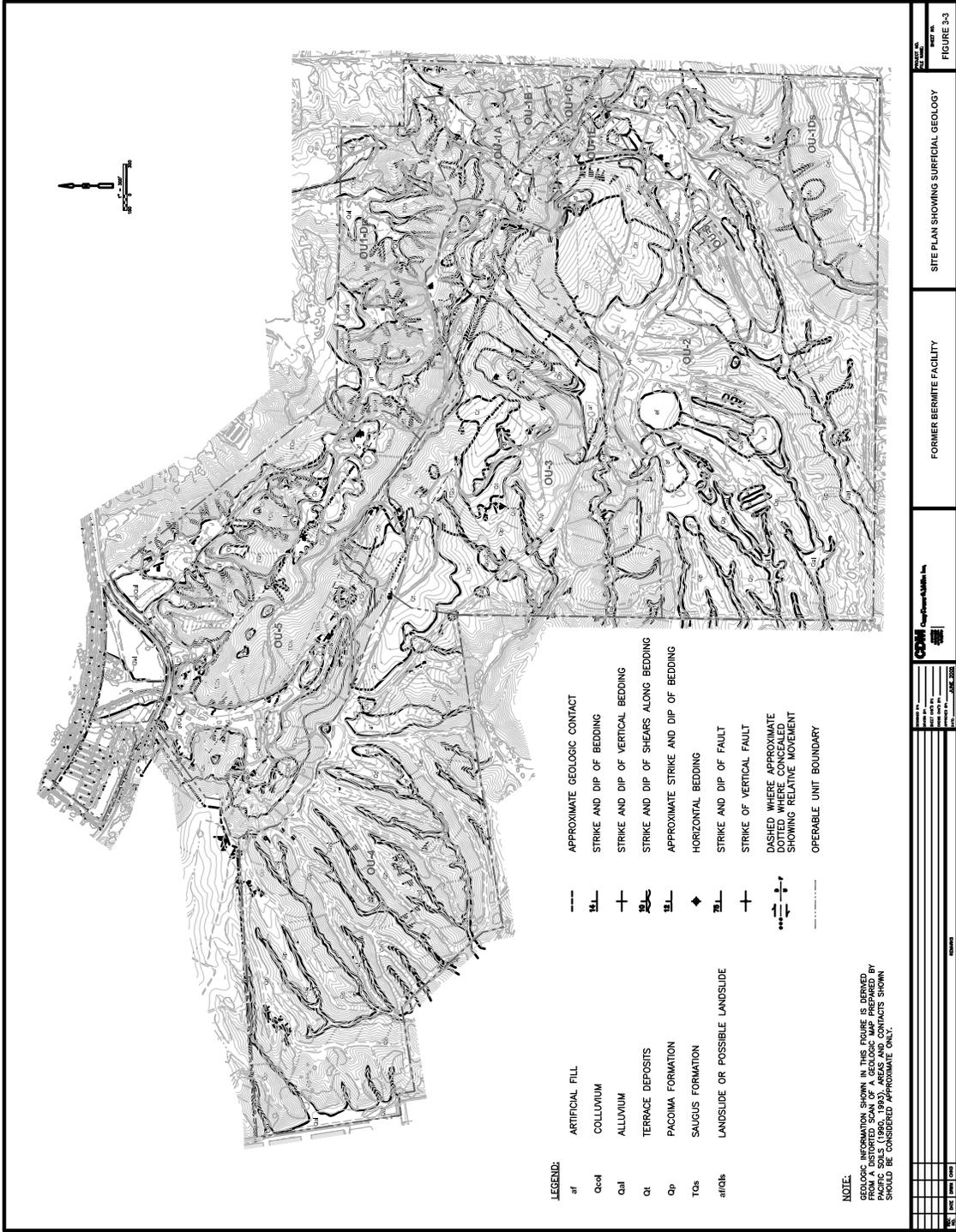


Figure 3-1





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DATE	JULY 2005	FIGURE NO.	FIGURE 3-3

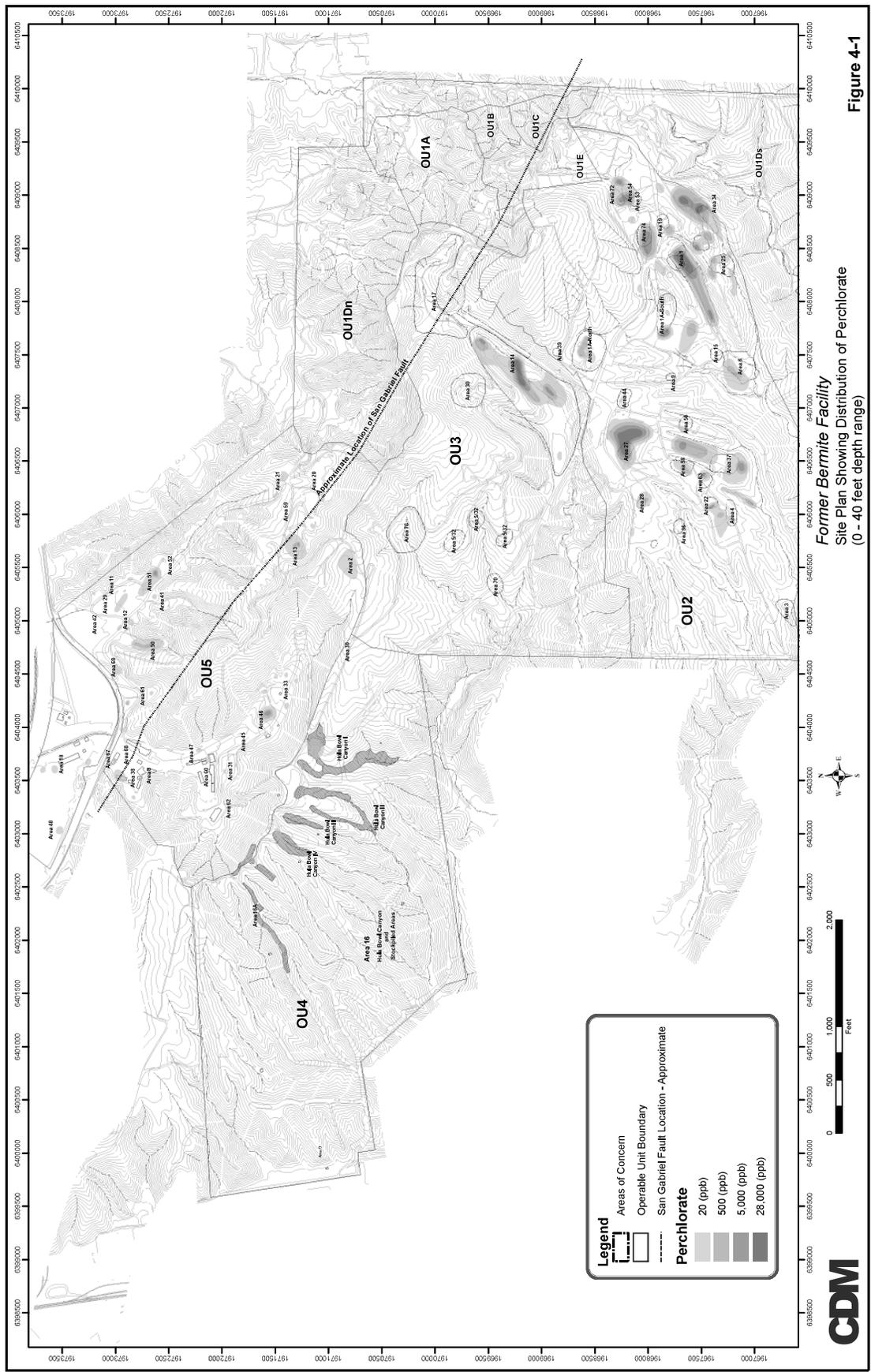


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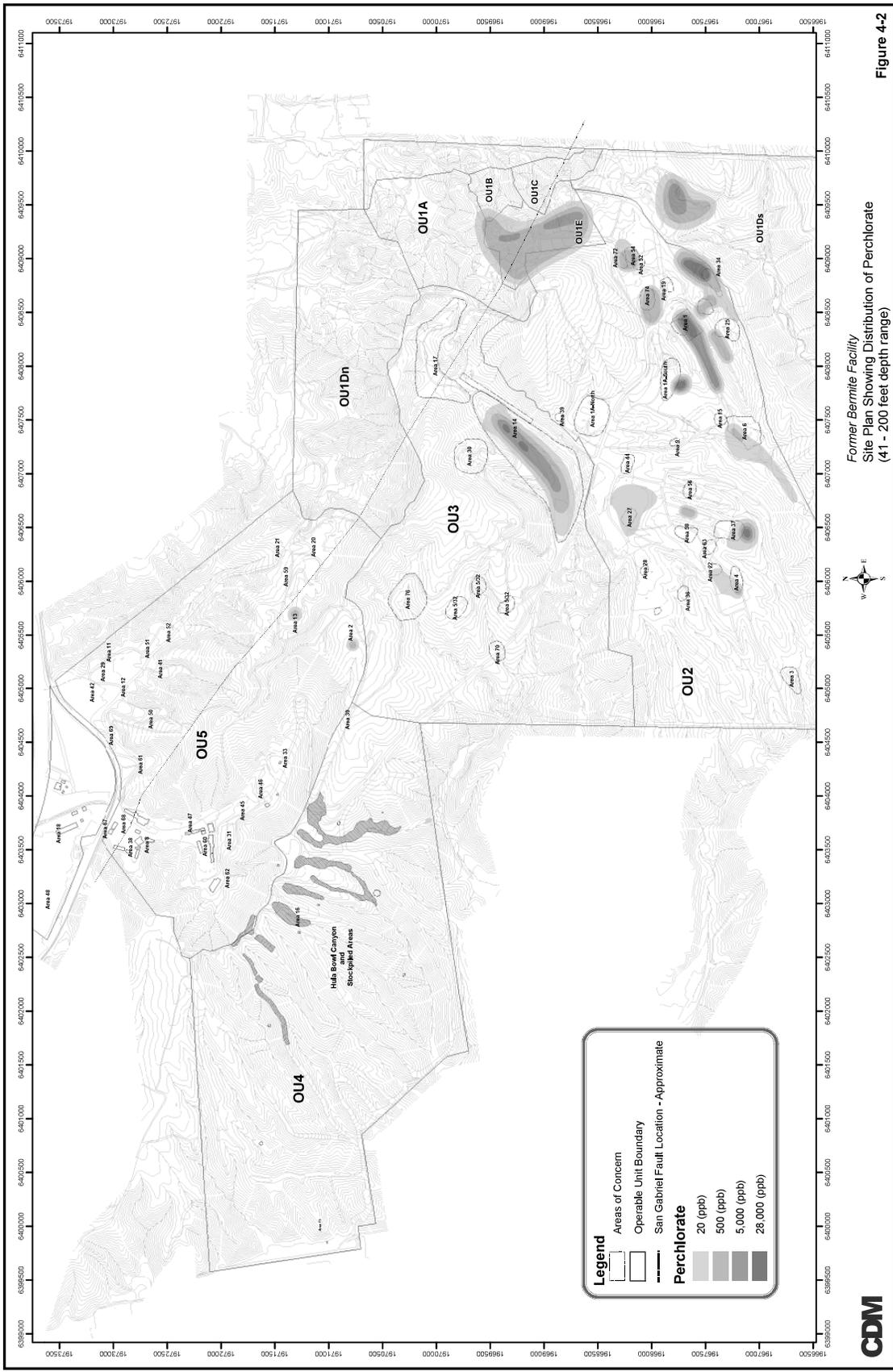


Figure 4-2

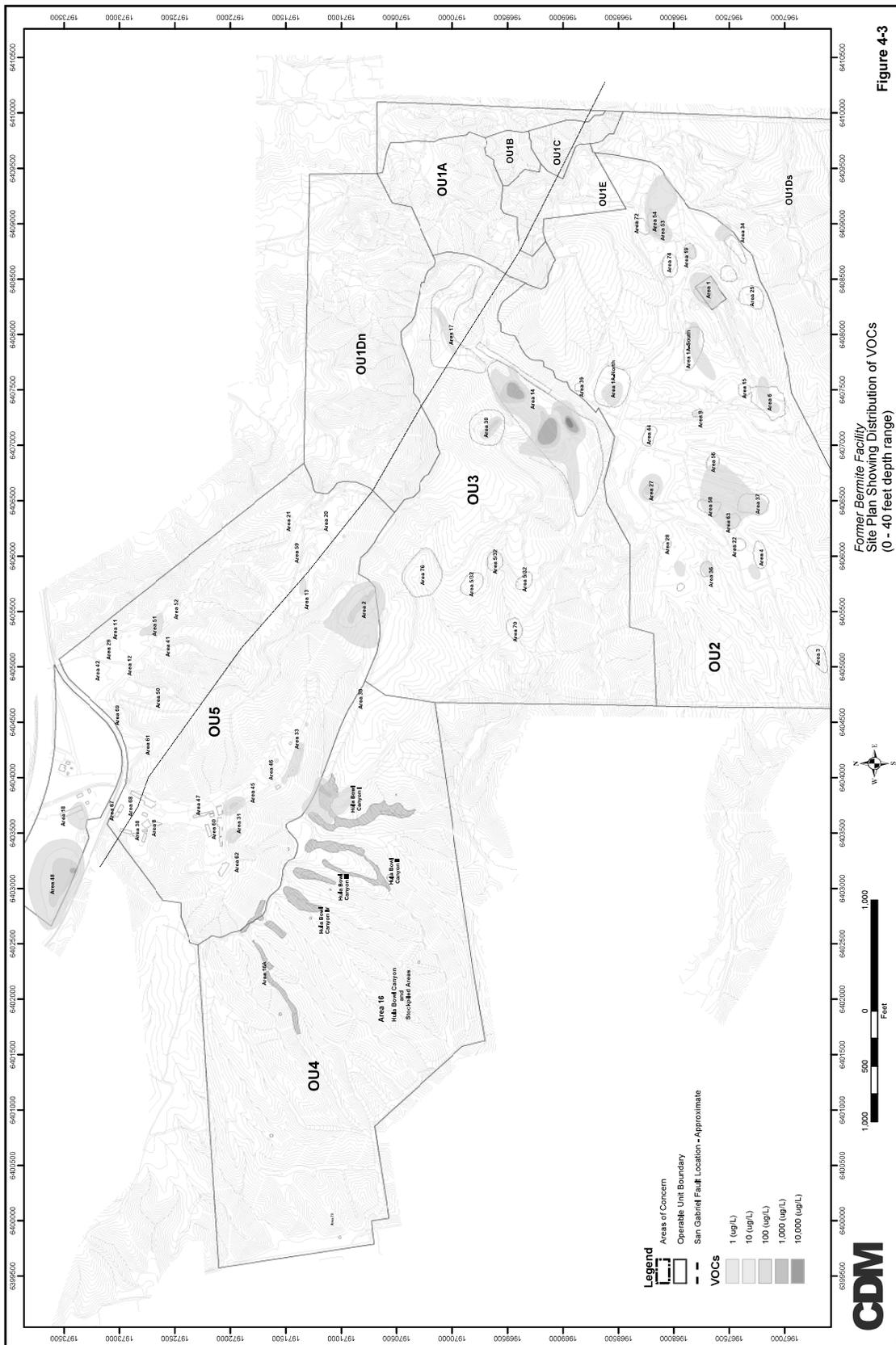


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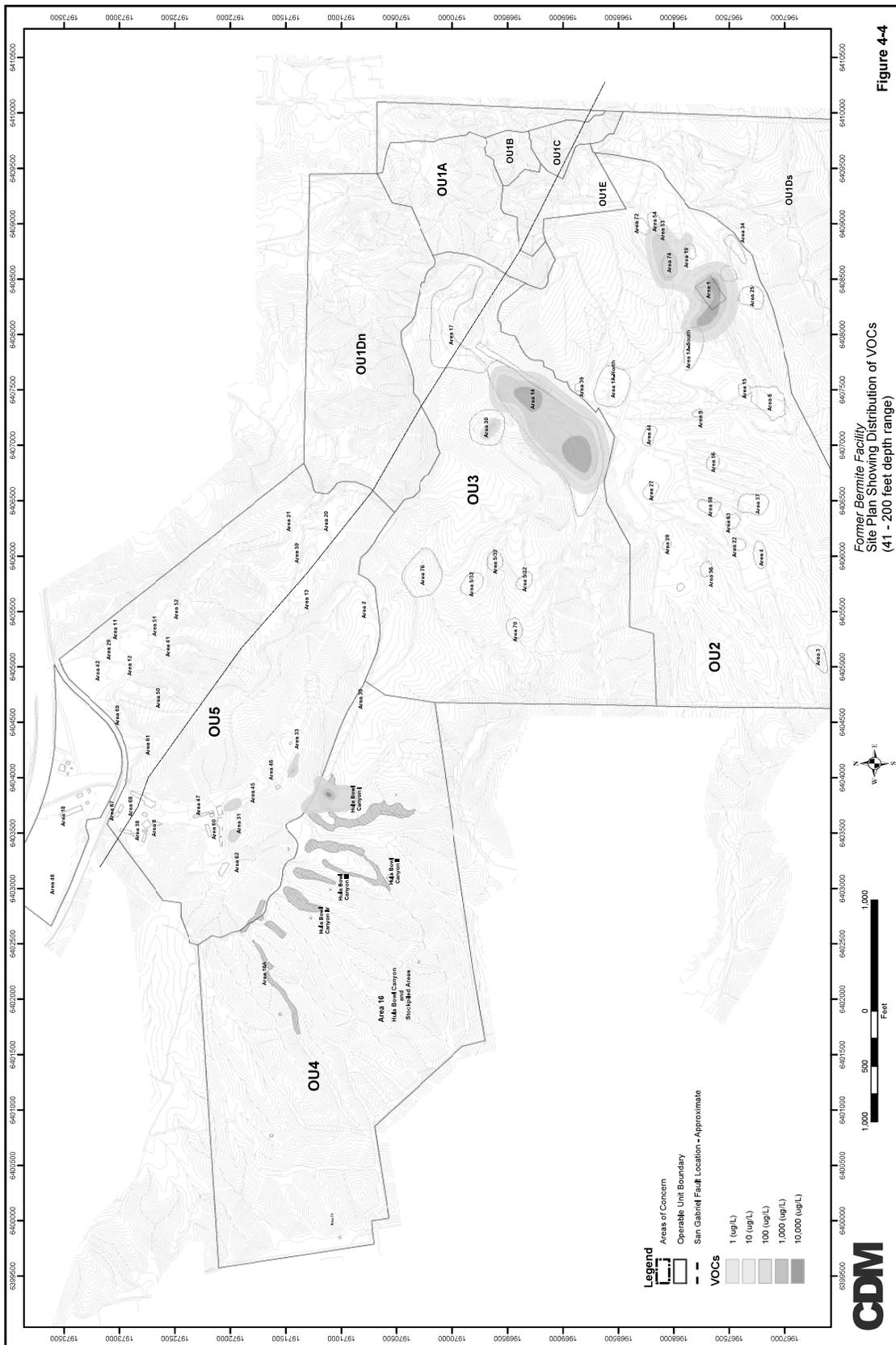
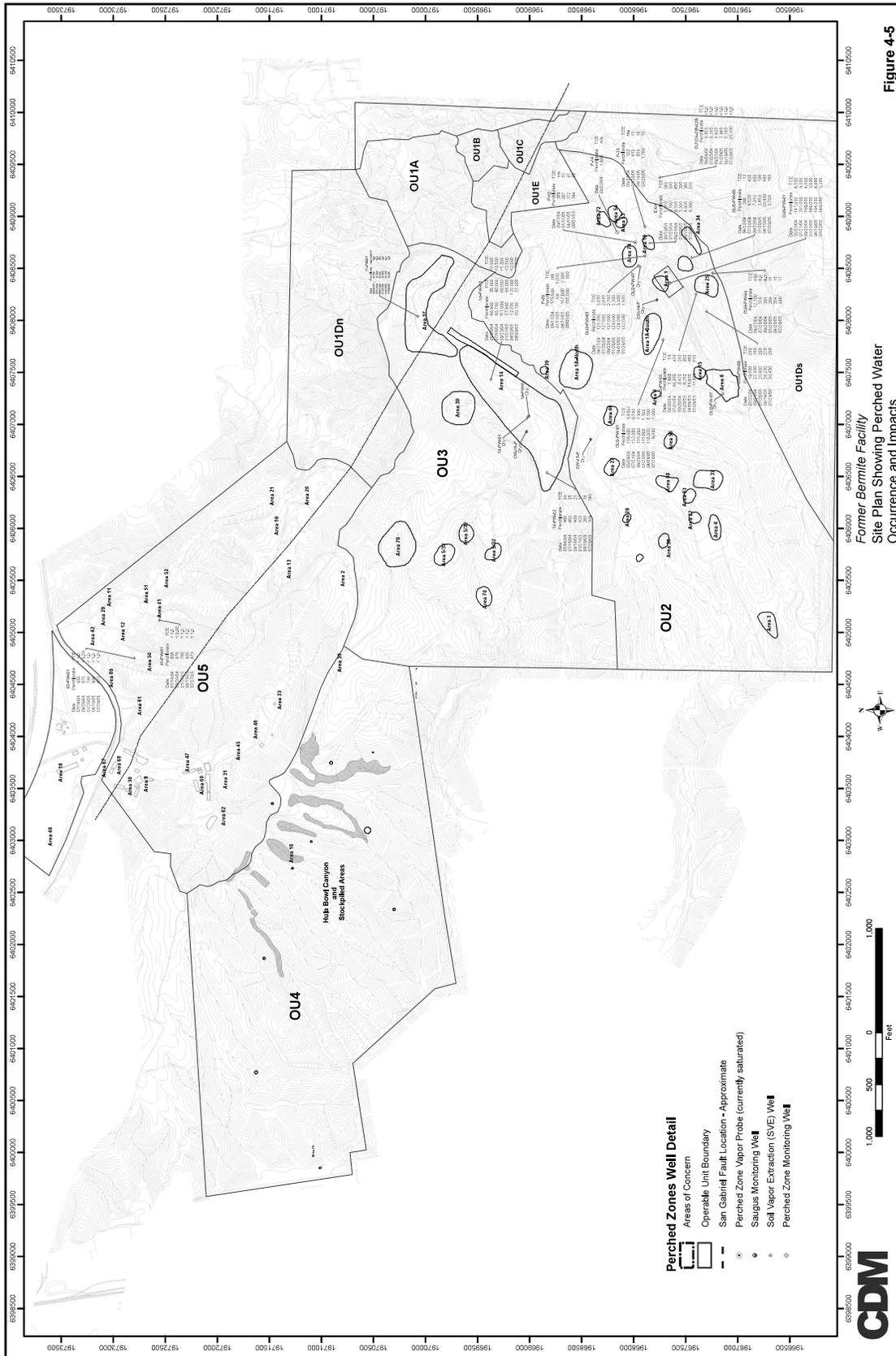
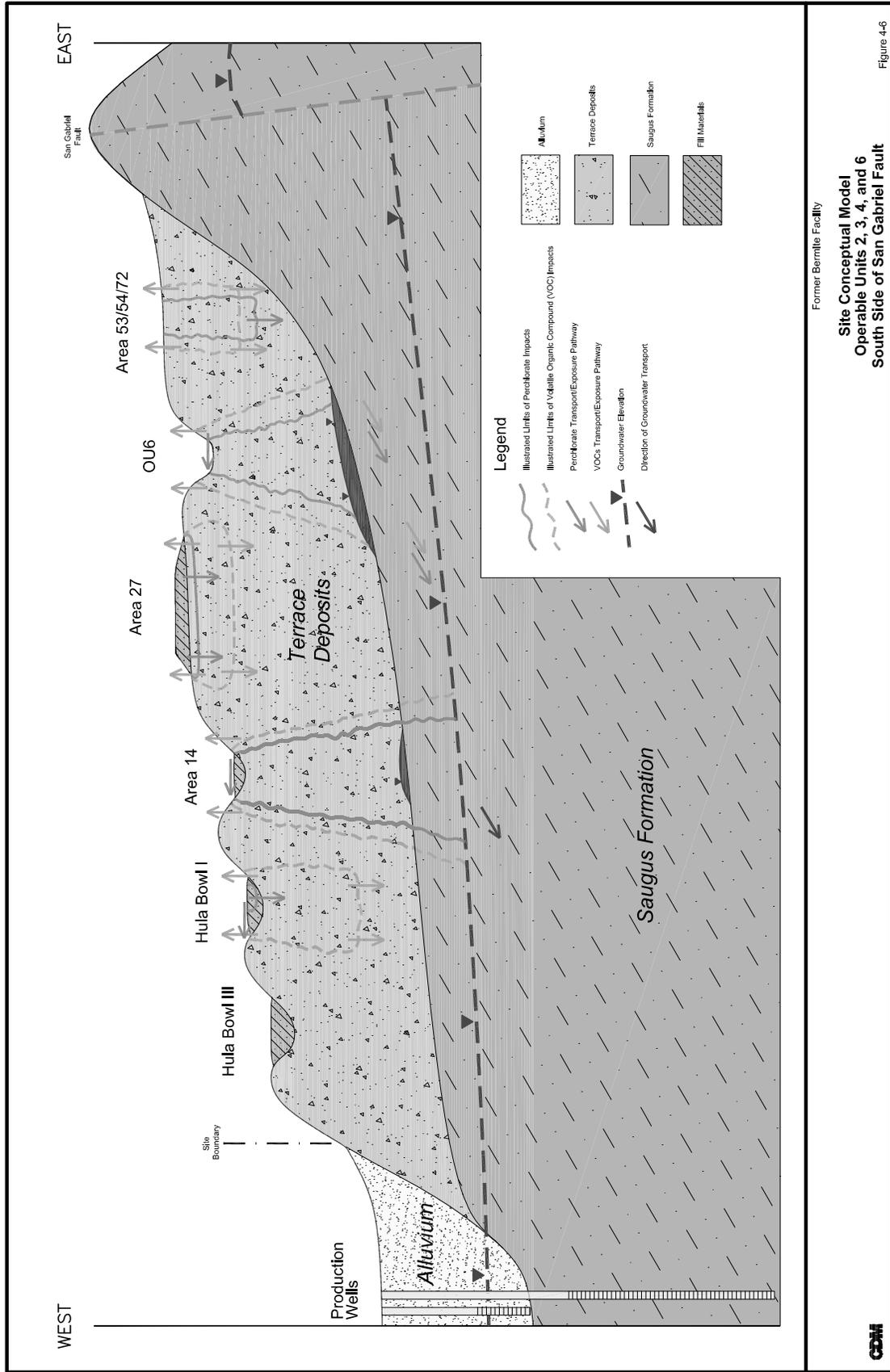


Figure 4-4





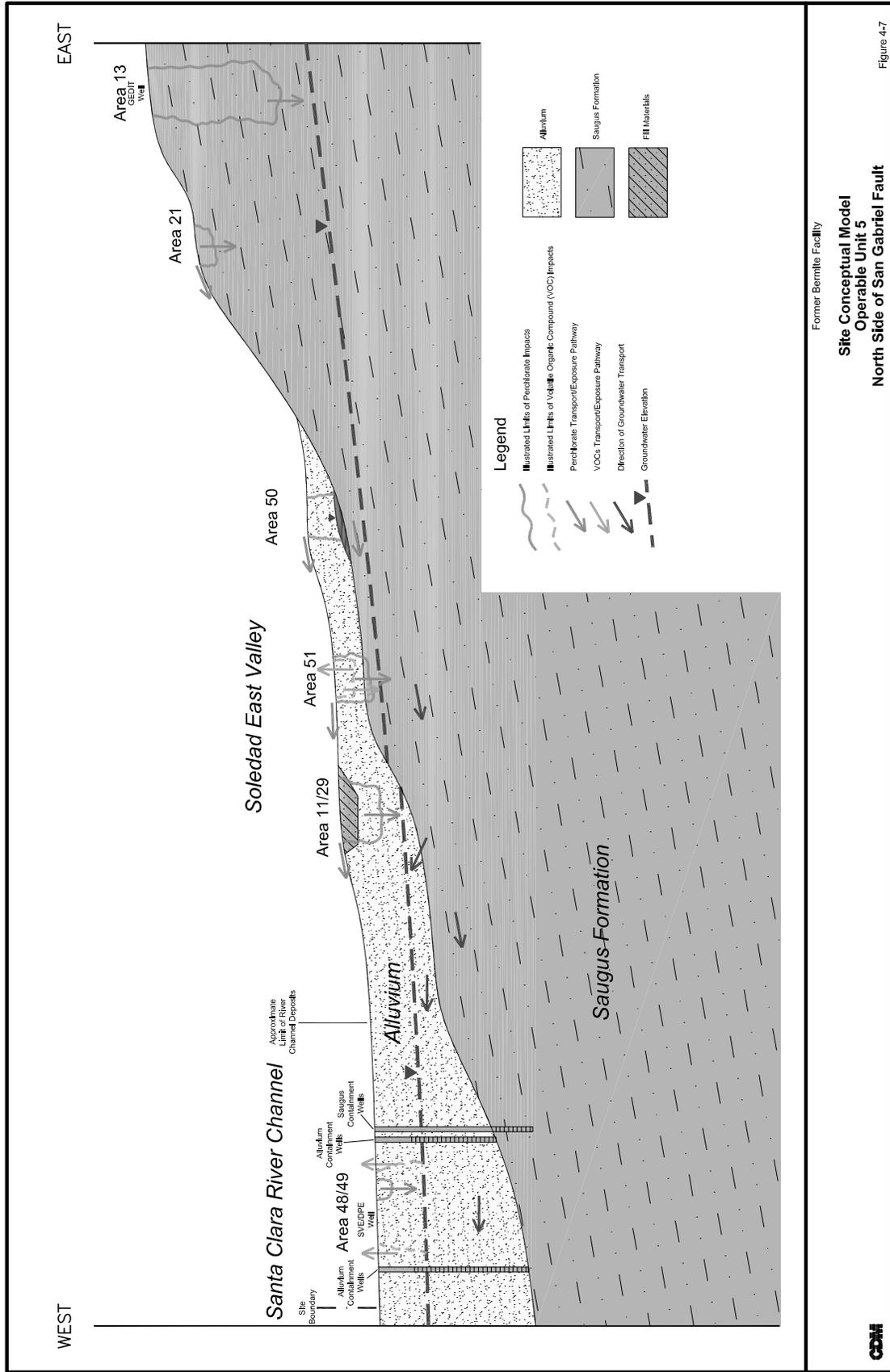
Former Berrille Facility

**Site Conceptual Model
Operable Units 2, 3, 4, and 6
South Side of San Gabriel Fault**

Figure 4-6



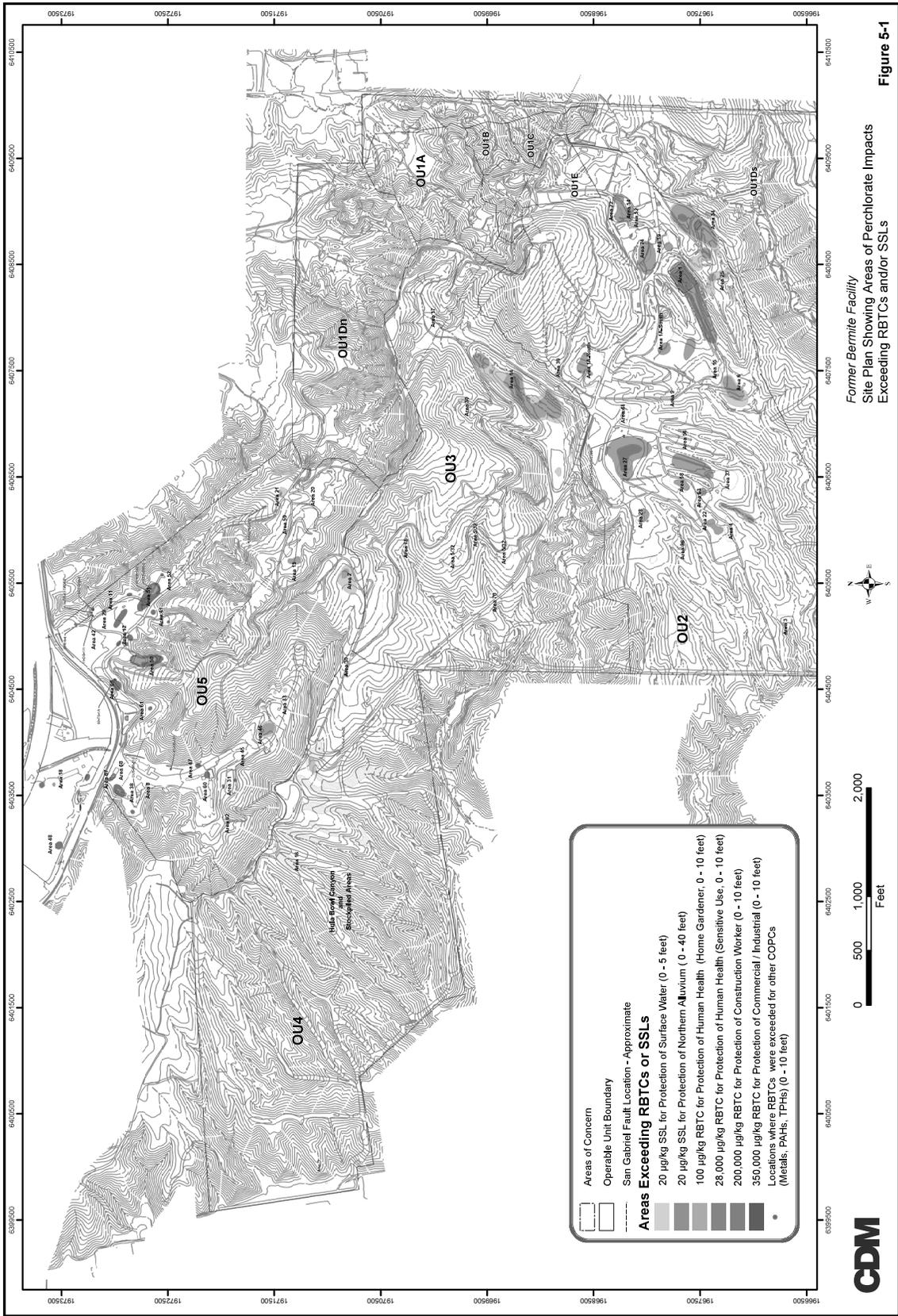
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Former Berrille Facility
Site Conceptual Model
Operable Unit 5
North Side of San Gabriel Fault

Figure 4-7

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**Former Berrite Facility
Site Plan Showing Areas of Perchlorate Impacts
Exceeding RBTCs and/or SSLs**

Figure 5-1

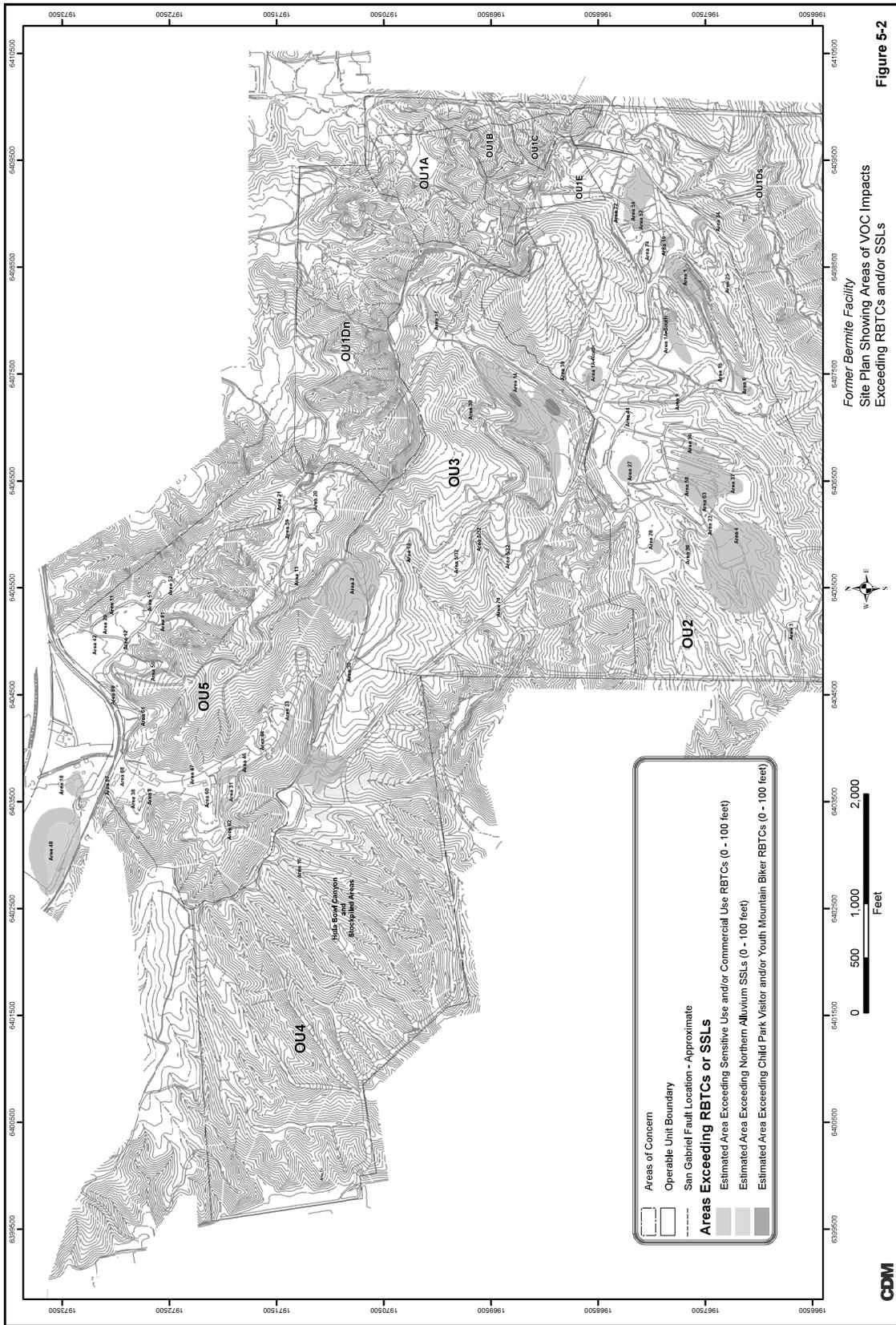
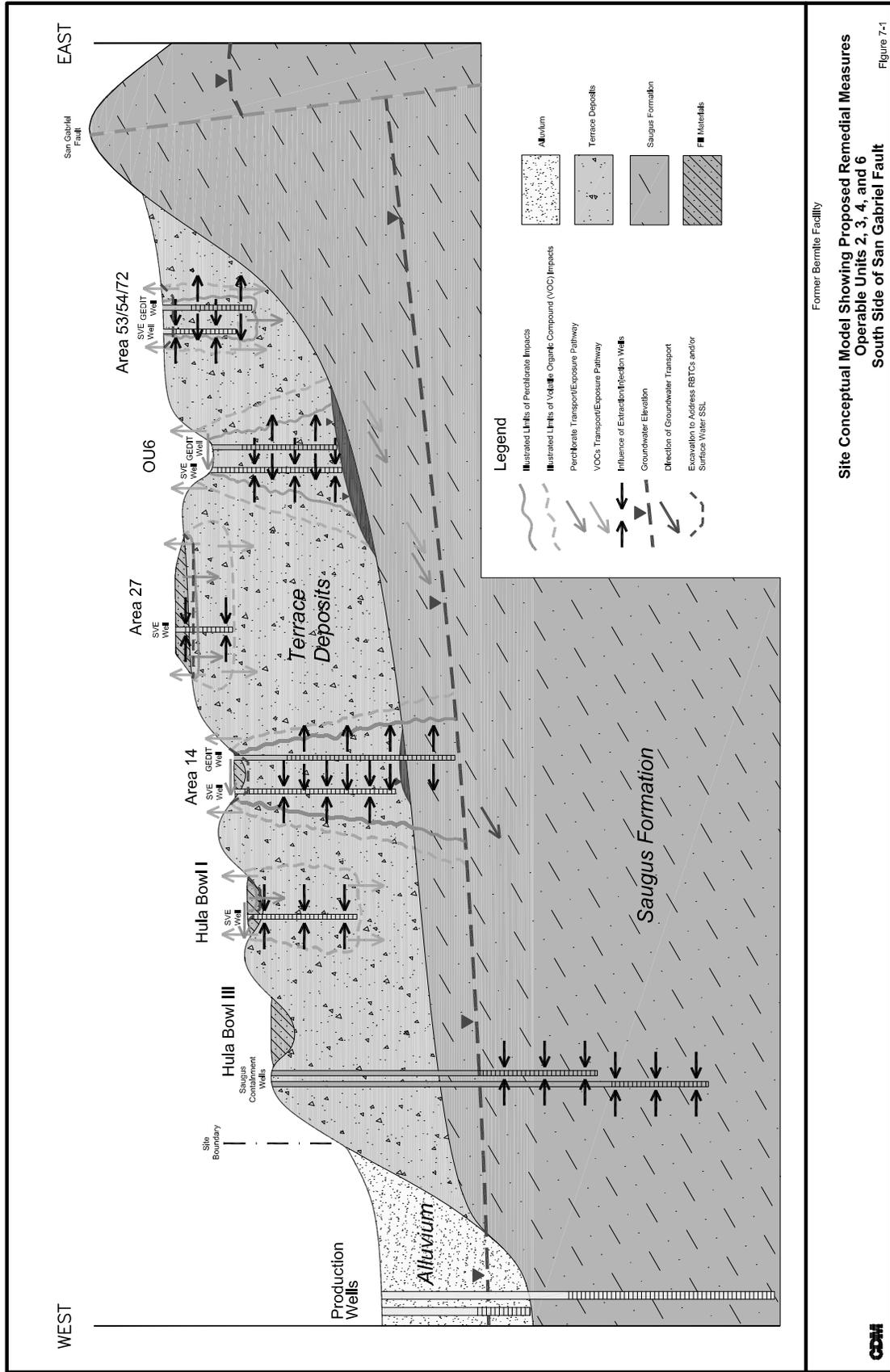
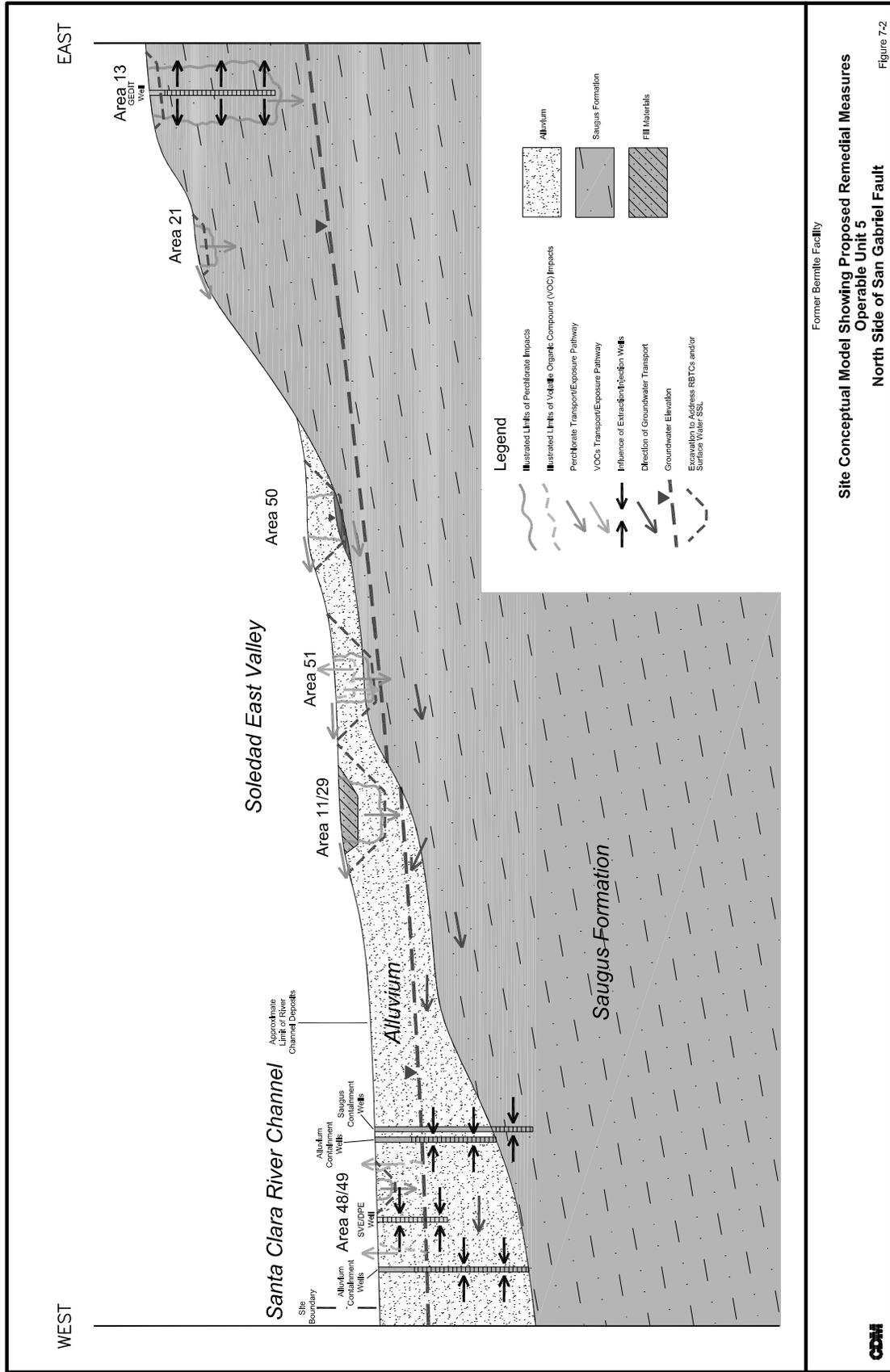


Figure 5-2

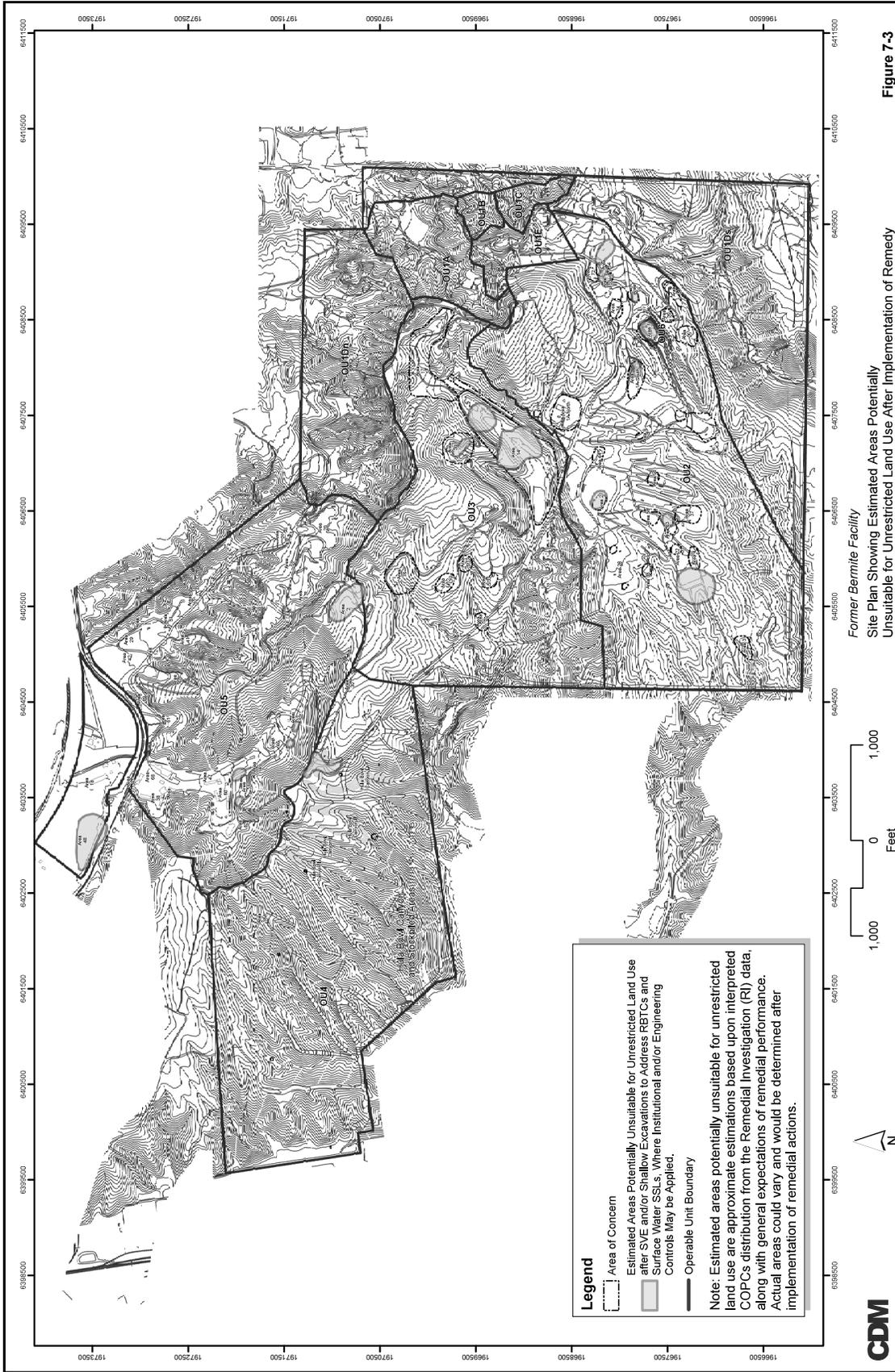


Former Bemite Facility
**Site Conceptual Model Showing Proposed Remedial Measures
 Operable Units 2, 3, 4, and 6
 South Side of San Gabriel Fault**
 Figure 7-1

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Section 10 Tables

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10-1

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**Table 5-1
Soil and Soil Gas RBTCs and SSLs for Selected Chemicals of Concern**

Chemical	Basis ^a	RBTC/ SSL	HHRA Scenario	Site Area Applicability
Soil (µg/kg)				
Perchlorate	Human health	28,000	Sensitive-use	Residential (general) and sensitive-use areas
		100	Home gardener	Single-family homes with gardens
		350,000	Commercial/industrial	Commercial/industrial areas
		200,000	Construction	Construction areas
		190,000	Child park visitor	Developed recreational areas
		640,000	Youth mountain biker	Open space
	Surface water	<DL ^b	na	Surface water drainages
	Groundwater	<DL ^b	na	Northern Alluvium (0-40 ft)
		560	na	Saugus Area (0-20 ft)
		280	na	Saugus Area (0-40 ft)
		160	na	Saugus Area (40-200 ft)
	Ecological	94-8,100 ^c	na	Open space
Soil Gas (µg/m³)				
Tetrachloroethene	Human health	4.0E+02	Sensitive-use	Residential (general) and sensitive-use areas
		1.4E+03	Commercial/industrial	Commercial/industrial areas
		1.6E+05	Construction	Construction areas
		3.0E+05	Child park visitor	Developed recreational areas
		7.5E+05	Youth mountain biker	Open space
	Groundwater	1.6E+04	na	Northern Alluvium (0-40 ft)
		4.3E+06	na	Saugus Area (0-20 ft)
		2.2E+06	na	Saugus Area (0-40 ft)
		1.2E+06	na	Saugus Area (40-200 ft)
Trichloroethene	Human health	1.1E+03	Sensitive-use	Residential (general) and sensitive-use areas
		3.8E+03	Commercial/industrial	Commercial/industrial areas
		4.4E+05	Construction	Construction areas
		8.1E+05	Child park visitor	Developed recreational areas
		2.0E+06	Youth mountain biker	Open space
	Groundwater	1.6E+04	na	Northern Alluvium (0-40 ft)
		4.3E+06	na	Saugus Area (0-20 ft)
		2.2E+06	na	Saugus Area (0-40 ft)
		1.2E+06	na	Saugus Area (40-200 ft)

Vinyl chloride	Human health	2.6E+01	Sensitive-use	Residential (general) and sensitive-use areas
		8.7E+01	Commercial/industrial	Commercial/industrial areas
		8.3E+03	Construction	Construction areas
		1.5E+04	Child park visitor	Developed recreational areas
		3.8E+04	Youth mountain biker	Open space
	Groundwater	2.8E+03	na	Northern Alluvium (0-40 ft)
		7.4E+05	na	Saugus Area (0-20 ft)
		3.7E+05	na	Saugus Area (0-40 ft)
		2.1E+05	na	Saugus Area (40-200 ft)

DL detection limit
ft feet
na not applicable
RBTC risk-based target concentration
SSL soil screening level
µg/kg microgram per kilogram
µg/m³ microgram per cubic meter

- ^a Indicates the basis of the listed soil RBTC or SSL: protection of human health, protection of groundwater quality, protection of surface water quality, or protection of ecological receptors.
- ^b The current detection limit for perchlorate in soil is 20 µg/kg; the detection limit in historical samples was typically 40 µg/kg.
- ^c The soil screening level value of 94 µg/kg is for protection of the California vole and the value of 8,100 µg/kg is for protection of the California quail.

Table 7-1
Summary of RBTC/SSL Exceedances by OU and Areas

Operable Unit	Area	Matrix	Compound	RBTCs*						SSLs*				
				Sensitive-Use Receptor 0-10 ft ^c	Home Gardener 0-10 ft ^c	Commercial Worker 0-10 ft ^c	Construction Worker 0-10 ft ^c	Child Park Visitor 0-10 ft ^c	Youth Mountain Biker 0-10 ft ^c	Surface Water 0-5 ft	N. Alluvium area 0-40ft	Saugus area 0-20ft	Saugus area 20-40ft	Saugus area 40-200ft
OU2	37	Soil Soil-Gas	Perchlorate Tetrachloroethene Trichloroethene	✓							✓	✓	✓	
				✓										
		Soil	TPH	✓										
				✓										
		Soil-Gas Soil-Gas	cis-1,2-Dichloroethene Trichloroethene Trichloroethene	✓	✓							✓	✓	✓
				✓	✓									
		Soil-Gas Soil-Gas	Trichloroethene Benzene	✓	✓							✓	✓	✓
				✓	✓									
		Soil Soil-Gas	Perchlorate Tetrachloroethene Benzene	✓	✓							✓	✓	✓
				✓	✓									
		Soil Soil-Gas	Perchlorate Tetrachloroethene Benzene	✓	✓							✓	✓	✓
				✓	✓									
		Soil Soil-Gas	Perchlorate Tetrachloroethene	✓	✓							✓	✓	✓
				✓	✓									
Soil	Perchlorate	✓	✓							✓	✓	✓		
		✓	✓											
OU3	14	Soil Soil	Perchlorate Tetrachloroethene Trichloroethene	✓	✓	✓	✓	✓	✓			✓	✓	
				✓	✓	✓	✓	✓	✓					
		Soil	2,4-dinitrotoluene	✓										
				✓										
		Soil	TCDD	✓										
				✓										
		Soil	Hexachlorobenzene	✓										
				✓										
		Soil	NOX	✓										
				✓										
		Soil	Lead	✓										
				✓										
		Soil	Copper	✓										
				✓										
Soil	Cadmium	✓												
		✓												
Soil	Thallium	✓												
		✓												
Soil-Gas Soil-Gas	1,1,1-Trichloroethane 1,1-Dichloroethane	✓	✓	✓	✓	✓	✓	✓	✓					
		✓	✓	✓	✓	✓	✓	✓	✓					
Soil-Gas Soil-Gas	1,1-Dichloroethane Tetrachloroethene	✓	✓	✓	✓	✓	✓	✓	✓					
		✓	✓	✓	✓	✓	✓	✓	✓					
Soil-Gas Soil-Gas	Trichloroethene	✓	✓	✓	✓	✓	✓	✓	✓					
		✓	✓	✓	✓	✓	✓	✓	✓					
Soil	Perchlorate	✓	✓											
		✓	✓											
Soil-Gas Soil-Gas	1,2,4-Trimethylbenzene Benzene	✓	✓											
		✓	✓											
Soil-Gas Soil-Gas	cis-1,2-Dichloroethene Vinyl chloride	✓	✓											
		✓	✓											
Soil-Gas Soil-Gas	1,1-Dichloroethane Carbon tetrachloride	✓	✓											
		✓	✓											
Soil-Gas Soil-Gas	Tetrachloroethene Trichloroethene	✓	✓											
		✓	✓											



Table 7-1
Summary of RBTC/SSL Exceedances by OU and Areas

Operable Unit	Area	Matrix	Compound	RBTC ^a						SSL ^b									
				Sensitive-Use Receptor 0-10 ft ^c	Home Gardener 0-10 ft ^c	Commercial Worker 0-10 ft ^c	Construction Worker 0-10 ft ^c	Child Park Visitor 0-10 ft ^c	Youth Mountain Biker 0-10 ft ^c	Surface Water 0-5 ft	N. Alluvium area 0-40ft	Saugus area 0-20ft	Saugus area 20-40ft	Saugus area 40-200ft					
OU4	16 - Hula Bowl Canyon I	Soil	Percchlorate	✓															
		Soil	Trichloroethene																
		Soil	Lead																
		Soil-Gas	1,1,2-Trichloroethane	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Chloroform	✓															
		Soil-Gas	cis-1,2-Dichloroethene	✓															
		Soil-Gas	Tetrachloroethene	✓															
		Soil-Gas	Trichloroethene	✓															
		Soil-Gas	Vinyl chloride	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Benzene	✓															
		Soil	Percchlorate	✓															
OU5	2	Soil	Percchlorate	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Carbon tetrachloride	✓															
		Soil-Gas	Trichloroethene	✓															
		Soil	Percchlorate	✓															
		Soil	Benzene	✓															
		Soil	Carbon tetrachloride	✓															
		Soil	Chloroform	✓															
		Soil	Percchlorate	✓															
		Soil	Benzene	✓															
		Soil	Percchlorate	✓															
		Soil	Benzene	✓															
		Soil-Gas	Trichloroethene	✓															
Soil-Gas	Carbon tetrachloride	✓																	
Soil	Percchlorate	✓																	
OU5	33	Soil	Percchlorate	✓															
		Soil-Gas	1,2-Dichloroethane	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Carbon tetrachloride	✓															
		Soil-Gas	Trichloroethene	✓															
		Soil	Percchlorate	✓															
		Soil	Lead	✓															
		Soil	Percchlorate	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Benzene	✓															
		Soil-Gas	Percchlorate	✓															
		Soil	Lead	✓															
		Soil	Percchlorate	✓															
Soil-Gas	Benzene	✓																	
OU5	41	Soil	Percchlorate	✓															
		Soil	Lead	✓															
		Soil	Percchlorate	✓															
		Soil-Gas	Benzene	✓															

**Table 7-2
Summary of Remedial Approach Applied for VOCs and Perchlorate for Various Areas at the Site**

Areas	Protection Scenarios	VOCs in Soil Remedial Approach			VOCs in Soil Gas Remedial Approach			Perchlorate in Soil Remedial Approach		
		Target Depth Range (feet)	VOC Conc. (ug/kg)	Goals	Target Depth Range (feet)	VOC Conc. (ug/m ³)	Goals	Target Depth Range (feet)	Conc. (ug/kg)	Goals
OU5 - 48/49	Protection of Human Health - Unrestricted Land Use	0-40	PCE 1,200 TCE 33 DCE 19	RBTC for PCE in soil exceeded for unrestricted land use. Implement in situ SVE in VOC to achieve source removal. Ex situ SVE is an acceptable alternative for VOCs. Use institutional and/or engineering controls if residual VOCs greater than RBTCs remain after remedial efforts.	0-40	PCE 400 TCE 1,100 DCE 54,000 C-DCB 20,000 Benz 75	RBTCs for VOCs in soil gas exceeded for unrestricted land use. Implement in situ SVE in VOC to achieve source removal. Ex situ SVE is an acceptable alternative for VOCs. Use institutional and/or engineering controls if residual VOCs greater than RBTCs remain after remedial efforts.	N/A	N/A	RBTCs for perchlorate are not exceeded for unrestricted land use.
	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil gas.	N/A	N/A	Impacted areas are not located in surface water flow pathways.
OU2 - 15; OU3 - 592, 57, 70, 76; OU4 - 71, 73	Protection of Northern Alluvium Groundwater	0-40	PCE 32 TCE 33 DCE 19	Northern Alluvium in situ SVE for VOCs to achieve source removal.	0-40	PCE 15,000 TCE 9,600 DCE 31,000 C-DCB 4,700 Benz 1,000	Northern Alluvium in situ SVE for VOCs to achieve source removal.	0-12	20	Impacted areas are not located in surface water flow pathways. Excavate and treat soil on-site to achieve goals to these depths.
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	N/A	N/A	No perchlorate impacts.
OU2 - 3, 9, 44; OU4 - Hula Bowl Canyon III	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	N/A	N/A	No perchlorate impacts.
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts or detected concentrations below RBTCs for unrestricted land use.	N/A	N/A	No VOC impacts or levels below RBTCs for unrestricted land use	N/A	N/A	RBTC for perchlorate is not exceeded for unrestricted land use
OU4 - Hula Bowl Canyons II and IV; OU5 - 20, 47	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil gas.	N/A	N/A	Surface water SSL is not exceeded or the impacted areas are not located in surface water flow pathways.
	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts or detected concentrations below SSLs for protection of Saugus Aquifer.	N/A	N/A	No VOC impacts or detected concentrations below SSLs for protection of Saugus Aquifer	N/A	N/A	Saugus aquifer SSLs for perchlorate are not exceeded.
OU5 - 21	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts or detected concentrations below RBTCs for unrestricted land use.	0-20	Benz CCL4 55	Low VOC impacts (slightly above RBTCs). Implementation of in situ SVE would be impractical. Remedial alternatives include institutional and/or engineering controls.	N/A	N/A	RBTC for perchlorate is not exceeded for unrestricted land use
	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil gas.	N/A	N/A	Surface water SSL is not exceeded or the impacted areas are not located in surface water flow pathways.
OU5 - 21	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts or detected concentrations below SSLs for protection of Saugus Aquifer.	N/A	N/A	Detected VOC concentrations below SSLs for protection of Saugus Aquifer	N/A	N/A	Saugus aquifer SSLs for perchlorate are not exceeded.
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	0-20 ¹	100	RBTC for perchlorate exceeded for unrestricted land use. Excavate and treat soil on-site to achieve goals to these depths.
OU4 - Area 10A (Stockpiled soils from Hula Bowl Canyon)	Protection of Surface Water	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	0-5	20	Surface water SSL for perchlorate exceeded. Excavate and treat soil on-site to achieve goals to these depths.
	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	N/A	N/A	Saugus aquifer SSLs for perchlorate not exceeded.
OU3 - 30	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	0-10	100	RBTC for perchlorate exceeded for unrestricted land use. Remove stockpiled soils and treat soil on-site to achieve goals.
	Protection of Surface Water	N/A	N/A	No VOC impacts	N/A	N/A	No VOC impacts	0-5	20	Surface water SSL for perchlorate exceeded. Remove stockpiled soils and treat on-site to achieve goals.
OU3 - 30	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts or detected concentrations below RBTCs for unrestricted land use.	N/A	N/A	No VOC impacts	0-10	560	Saugus aquifer SSLs exceeded. Remove stockpiled soils and treat on-site to achieve goals.
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	0-60	PCE 400 TCE 1,100 DCE 52,000 Benz 75	RBTCs for VOCs are exceeded for unrestricted land use. Implement in situ SVE for VOCs to achieve source removal. Use institutional and/or engineering controls if residual VOCs remain after remedial efforts.	N/A	N/A	No perchlorate impacts.
OU3 - 30	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil gas.	N/A	N/A	No perchlorate impacts.
	Protection of Saugus Formation Groundwater	N/A	N/A	SSLs are not exceeded for VOCs in soil matrix	N/A	N/A	SSLs are not exceeded for VOCs in soil gas	N/A	N/A	No perchlorate impacts.



**Table 7-2
Summary of Remedial Approach Applied for VOCs and Perchlorate for Various Areas at the Site**

Areas	Protection Scenarios	VOCs in Soil Remedial Approach			VOCs in Soil Gas Remedial Approach			Perchlorate in Soil Remedial Approach		
		Target Depth Range (feet)	VOC Conc. (ug/kg)	Goals	Target Depth Range (feet)	VOC Conc. (ug/m ³)	Goals	Target Depth Range (feet)	VOC Conc. (ug/kg)	Goals
OU2-36	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts or detected concentrations below RBTs for unrestricted land use.	C-30+	PCE Benz	400 75	N/A	N/A	For each area of the site, implement the remedial measures to address applicable protection scenarios. No perchlorate impacts.
	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs.	N/A	N/A	N/A	N/A	N/A	No perchlorate impacts.
	Protection of Saugus Formation	N/A	N/A	SSIs are not exceeded for VOCs in soil matrix	N/A	N/A	N/A	N/A	N/A	No perchlorate impacts.
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts detected in soil matrix samples	D-30	PCE TCE	400 1,100	N/A	100	RBTC for perchlorate not exceeded for unrestricted land use within the upper 10 feet.
OU2-437, 26, OU5-46	Protection of Surface Water	N/A	N/A	No VOC impacts detected in soil matrix samples	N/A	N/A	N/A	N/A	N/A	Impacted area is not located in surface water flow pathways.
	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts detected in soil matrix samples	N/A	N/A	N/A	500 280 150	Saugus aquifer SSLs for perchlorate exceeded. Implement on-site groundwater containment, and conduct pilot studies to determine deep soil treatment feasibility and implement if effective and other methods not adequate.	
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts or detected concentrations below RBTs for unrestricted land use.	N/A	N/A	N/A	100	RBTC for perchlorate exceeded for unrestricted land use. Excavate and treat soil on-site to achieve goals to these depths.	
	Protection of Surface Water	N/A	N/A	No VOC impacts	N/A	N/A	N/A	20	Surface water SSL for perchlorate exceeded. Excavate and treat soil on-site to achieve goals to these depths.	
OU2-74	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOC impacts or detected concentrations below SSLs for protection of Saugus Aquifer.	N/A	N/A	N/A	500 280 160	Saugus aquifer SSLs for perchlorate exceeded. Implement on-site groundwater containment, and conduct pilot studies to determine deep soil treatment feasibility and implement if effective and other methods not adequate.	
	Protection of Surface Water	N/A	N/A	No VOC impacts	N/A	N/A	N/A	100	RBTC for perchlorate exceeded for unrestricted land use. Excavate and treat soil on-site to achieve goals to these depths.	
	Protection of Saugus Formation Groundwater	N/A	N/A	No VOC impacts or detected concentrations below SSLs for protection of Saugus Aquifer.	N/A	N/A	N/A	N/A	Impacted area is not located in surface water flow pathways.	
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	RBTs are not exceeded for VOCs in soil matrix.	N/A	N/A	N/A	100	RBTC for perchlorate exceeded for unrestricted land use. Excavate and treat soil on-site to achieve goals to these depths.	
OU5-33	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	N/A	N/A	Impacted area is not located in surface water flow pathways.	
	Protection of Saugus Formation	N/A	N/A	SSIs are not exceed for protection of Saugus Aquifer.	N/A	N/A	N/A	500 280 160	Saugus aquifer SSLs for perchlorate exceeded. Implement on-site groundwater containment, and conduct pilot studies to determine deep soil treatment feasibility and implement if effective and other methods not adequate.	
	Protection of Human Health - Unrestricted Land Use	N/A	N/A	No VOCs detected in soil matrix	D-100	TCE Benz CCL4	1,100 75 55	N/A	RBTC for perchlorate not exceeded for unrestricted land use within the upper 10 feet.	
	Protection of Surface Water	N/A	N/A	No cleanup goals established for protection of surface water from VOCs in soil matrix.	N/A	N/A	N/A	20	Surface water SSL for perchlorate exceeded. Excavate and treat soil on-site to achieve goals to these depths.	



Appendix F Final CEQA Documents

CDM

NOTICE OF DETERMINATION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Brownfields & Environmental Restoration Programs
9211 Oakdale Avenue
Chatsworth, CA 91311

Subject: FILING OF NOTICE OF DETERMINATION IN COMPLIANCE WITH SECTION 21108 OR 21152 OF THE PUBLIC RESOURCES CODE

Project Title: Remedial Action Plan for Operable Units 2 through 6, Former Whittaker-Bermite Facility

State Clearinghouse No.: 2010071042

Project Location: 22116 Soledad Canyon Road, Santa Clarita, California

County: Los Angeles

Project Description: The proposed project consists of the remediation of contaminated soil through implementation of the Remedial Action Plan (RAP) for Operable Units (OU) 2 through 6 and the deep soils of OU1 at the former Whittaker-Bermite facility, in the City of Santa Clarita, California (the Site). For effective management of site characterization and remediation, the Site has been divided into seven operable units (OUs) with OU1 through OU6 designated for soils and OU7 for groundwater beneath the Site. Characterization of all OUs has been completed and remediation of the shallow soils in OU1 was completed in 2009 in accordance with the approved plans, with the exception of soil vapor extraction (SVE) operations in certain areas of OU1 that are still ongoing, but are expected to be completed in the near future. The area addressed in the RAP encompasses OU2 through OU6. It also considers the deep soils for OU1 not previously addressed in the OU1 RAP and Remedial Design (RD) documents.

The proposed remedial action identified in the Site-Wide RAP for soils at OU1 through OU6 (the proposed project) is comprised of a combination of approaches and technologies to remediate OU1 through OU6 soils that contain perchlorate, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, where present at levels exceeding risk-based cleanup goals, and rationale used in developing the remedial strategies. The proposed remedial actions include in-situ soil vapor extraction (SVE), shallow remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, ex-situ biological treatment of perchlorate-impacted soils, and in-situ biological treatment of perchlorate-impacted soils¹. Excavated soils would be treated through combinations of ex-situ SVE, ex-situ anaerobic bioremediation, chemical oxidation and offsite treatment/disposal at an appropriate permitted facility.

The development of the proposed remedial alternative (also referred to as the proposed project) and approach followed the completion of a series of remedial investigations, health risk analyses, literature reviews, treatability studies, field pilot tests of ex-situ soil treatment, feasibility studies, and interim cleanup and other measures protective of human health and the environment that Whittaker has conducted starting in 1995 and continuing to date under work plans submitted to and approved by DTSC. The primary chemicals of potential concern (COPCs) detected during the Site-Wide Remedial Investigation (RI), include perchlorate and VOCs (primarily chlorinated hydrocarbon compounds). There are also limited areas/volumes of soils impacted by other COPCs, depleted uranium (DU) fragments, SVOCs (such as polycyclic aromatic hydrocarbons [PAH]), and selected metals. The DU fragments were removed between March and May 2010.

The City of Santa Clarita has approved a large scale, mixed use development plan for the property known as the "Porta Bella Plan." These entitlements are now held by Remediation Financial Inc. /Santa Clarita LLC (SCLLC). Under the bankruptcy court's oversight, the property is currently being marketed for development as a multi-use community. Since the drafting of the Porta Bella Plan in 1995, a significant amount of environmental investigative work has been conducted across the Site. Based upon the findings of those investigations some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures. Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.

¹ pending successful field pilot testing
DTSC 1329 (3/06/06)

The incorporation of the Porta Bella Plan grading envelope into this RAP, which the City of Santa Clarita has stated would remain essentially unchanged even under alternative redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades.

The proposed remedial approach for the contaminated areas was developed based on the aforementioned goals and objectives, the magnitude and extent of chemical impacts, and potential human health risks. Table 1 lists those areas identified in the Site-Wide RAP where remedial action is proposed.

Table 1: Remedial Approach			
OU	Area	Chemicals of Potential Concern (COPC)	Area of Concern (approximate acreage & soil volume)
OU2	1A-North, 1A-South, 4, 4/37, 6, 19, 22, 25, 27, 28, 34, 36, 37, 39, 53/54/72, 56, 56/58, 58, 63, and 74	VOCs/ Perchlorate/other COPCs	VOCs – 25.2 acres (3,181,981 yd ³), Perchlorate – 13.5 acres (556,747 yd ³) Other COPCs – 0.01 acres (163 yd ³)
OU3	14, 17, and 30	VOCs/ Perchlorate/other COPCs	VOCs – 10.3 acres (1,361,506 yd ³) Perchlorate – 4.6 acres (59,044 yd ³) Other COPCs – 0.06 acres (640 yd ³)
OU4	Hula Bowl Canyons I, II, IV, and Area 16A (stockpiled soils removed from Hula Bowl Canyon IV)	VOCs/ Perchlorate/other COPCs	VOCs – 2.6 acres (479,727 yd ³) Perchlorate – 0.9 acres (9,824 yd ³) Other COPCs – 0.01 acres (58 yd ³)
OU5	2, 12, 13, 18, 21, 31/45, 33, 41, 46, 48/49, 50, 51, 61, 67, 68, and 69	VOCs/ Perchlorate/Other COPCs	VOCs – 14.9 acres (1,621,593 yd ³) Perchlorate – 4.6 acres (135,400 yd ³) Other COPCs – 0.08 acres (817 yd ³)
OU6	1 (RCRA Unit)	VOCs	2 acres (289,687 yd ³)

As Lead Agency a Responsible Agency under the California Environmental Quality Act (CEQA), DTSC approved the above-described project on [date] and has made the following determinations:

- The project will will not have a significant effect on the environment.
- A Negative Declaration Mitigated Negative Declaration Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
- Mitigation measures were were not made a condition of project approval.
- A mitigation reporting or monitoring plan was was not adopted for this project.
- A Statement of Overriding Considerations was was not adopted for this project.
- Findings were were not made pursuant to the provisions of CEQA.

This is to certify that the final environmental document, comments and responses, and the record of project approval are available to the public at the following location: Department of Toxic Substances Control, 9211 Oakdale Avenue Chatsworth, CA 91311.

Jose Diaz	Senior Project Manager	818.717.6614
Contact Person Name	Contact Person Title	Phone #
		11/20/10
Branch Chief Signature		Date
Steve Lavinger	Performance Manager	818.717.6530
Branch Chief Name	Branch Chief Title	Phone #

TO BE COMPLETED BY OPR ONLY

Date Received For Filing and Posting at OPR:

NEGATIVE DECLARATION

Department of Toxic Substances Control
Brownfields And Environmental Restoration Program
Southern California - Chatsworth Office
9211 Oakdale Avenue
Chatsworth, CA 91342]

Subject: DRAFT FINAL MITIGATED

Project Title: Remedial Action Plan for Operable Units 2 Through 6, Former Whittaker-Bermite Facility

State Clearinghouse No.: 2010071042

Project Location: 22116 Soledad Canyon Road, Santa Clarita, California

County: Los Angeles County

Project Description: The proposed project consists of the remediation of contaminated soil through implementation of the Remedial Action Plan (RAP) for Operable Units (OU) 2 through 6 and the deep soils of OU1 at the former Whittaker-Bermite facility, in the City of Santa Clarita, California (the Site). For effective management of site characterization and remediation, the Site has been divided into seven operable units (OUs) with OU1 through OU6 designated for soils and OU7 for groundwater beneath the Site. Characterization of all OUs has been completed and remediation of the shallow soils in OU1 was completed in 2009 in accordance with the approved plans, with the exception of soil vapor extraction (SVE) operations in certain areas of OU1 that are still ongoing, but are expected to be completed in the near future. The area addressed in the RAP encompasses OU2 through OU6. It also considers the deep soils for OU1 not previously addressed in the OU1 RAP and Remedial Design (RD) documents.

The proposed remedial action identified in the Site-Wide RAP for soils at OU1 through OU6 (the proposed project) is comprised of a combination of approaches and technologies to remediate OU1 through OU6 soils that contain perchlorate, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, where present at levels exceeding risk-based cleanup goals, and rationale used in developing the remedial strategies. The proposed remedial actions include in-situ soil vapor extraction (SVE), shallow remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, ex-situ biological treatment of perchlorate-impacted soils, and in-situ biological treatment of perchlorate-impacted soils¹. Excavated soils would be treated through combinations of ex-situ SVE, ex-situ anaerobic bioremediation, chemical oxidation and offsite treatment/disposal at an appropriate permitted facility.

The development of the proposed remedial alternative (also referred to as the proposed project) and approach followed the completion of a series of remedial investigations, health risk analyses, literature reviews, treatability studies, field pilot tests of ex-situ soil treatment, feasibility studies, and interim cleanup and other measures protective of human health and the environment that Whittaker has conducted starting in 1995 and continuing to date under work plans submitted to and approved by DTSC. The primary chemicals of potential concern (COPCs) detected during the Site-Wide Remedial Investigation (RI), include perchlorate and VOCs (primarily chlorinated hydrocarbon compounds). There are also limited areas/volumes of soils impacted by other COPCs, depleted uranium (DU) fragments, SVOCs (such as polycyclic aromatic hydrocarbons [PAH]), and selected metals. The DU fragments were removed between March and May 2010.

The City of Santa Clarita has approved a large scale, mixed use development plan for the property known as the "Porta Bella Plan." These entitlements are now held by Remediation Financial Inc./Santa Clarita LLC (SCLLC). Under the bankruptcy court's oversight, the property is currently being marketed for development as a multi-use community. Since the drafting of the Porta Bella Plan in 1995, a significant amount of environmental investigative work has been conducted across the Site. Based upon the findings of those investigations some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use

¹ pending successful field pilot testing

DTSC 1327 (1/06/06)

Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures. Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.

The incorporation of the Porta Bella Plan grading envelope into this RAP, which the City of Santa Clarita has stated would remain essentially unchanged even under alternative redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades.

The proposed remedial approach for the contaminated areas was developed based on the aforementioned goals and objectives, the magnitude and extent of chemical impacts, and potential human health risks. Table 1 lists those areas identified in the Site-Wide RAP where remedial action is proposed.

Table 1: Remedial Approach			
OU	Area	Chemicals of Potential Concern (COPC)	Area of Concern (approximate acreage & soil volume)
OU2	1A-North, 1A-South, 4, 4/37, 6, 19, 22, 25, 27, 28, 34, 36, 37, 39, 53/54/72, 56, 56/58, 58, 63, and 74	VOCs/ Perchlorate/other COPCs	VOCs – 25.2 acres (3,181,981 yd ³), Perchlorate – 13.5 acres (556,747 yd ³) Other COPCs – 0.01 acres (163 yd ³)
OU3	14, 17, and 30	VOCs/ Perchlorate/other COPCs	VOCs – 10.3 acres (1,361,506 yd ³), Perchlorate – 4.6 acres (59,044 yd ³), Other COPCs - 0.06 acres (640 yd ³)
OU4	Hula Bowl Canyons I, II, IV, and Area 16A (stockpiled soils removed from Hula Bowl Canyon IV)	VOCs/ Perchlorate/other COPCs	VOCs – 2.6 acres (479,727 yd ³) Perchlorate – 0.9 acres (9,824 yd ³) Other COPCs – 0.01 acres (58 yd ³)
OU5	2, 12, 13, 18, 21, 31/45, 33, 41, 46, 48/49, 50, 51, 61, 67, 68, and 69	VOCs/ Perchlorate/Other COPCs	VOCs – 14.9 acres (1,621,593 yd ³) Perchlorate – 4.6 acres (135,400 yd ³) Other COPCs – 0.08 acres (817 yd ³)
OU6	1 (RCRA Unit)	VOCs	2 acres (289,687 yd ³)

REMEDIAL ELEMENTS:

The proposed project is comprised of a combination of in-situ SVE, remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, and ex-situ biological treatment of perchlorate-impacted soils. Following in-situ SVE, the perchlorate-impacted soils would be excavated and treated on-site through anaerobic bioremediation to allow for reuse rather than off-site disposal. If the VOC concentrations of the excavated soils exceed South Coast Air Quality Management District (SCAQMD) thresholds, then an ex-situ SVE pre-treatment step would be implemented on stockpiled soils to bring VOC emissions down prior to bioremediation processing. Preliminary testing has also demonstrated that bioremediation in combination with chemical oxidation can be used to treat soil containing both perchlorate and VOCs. Ex-situ chemical oxidation, using the same process equipment as the ex-situ bioremediation, may potentially be used as a final VOC polishing step if residual VOC concentrations exceeding risk-based target concentrations (RBTCs) and/or soil screening levels (SSLs) are present in the soil after the bioremediation step. In-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation.

OU7 is currently under investigation, and the final remedy for that site has not yet been determined. The on-site groundwater containment will be conducted as part of the OU7 remedy and comprehensive site remediation strategy. Consequently, a separate CEQA document analyzing the remedy for OU7 will be prepared when the final remedy is identified.

Finding Of Significant Effect On Environment: (An Initial Study supporting this finding is attached.)

There will be no significant effects from the project based on the findings in the attached Initial Study.

Mitigation Measures:

Potentially significant effects that can be reduced to less than significant levels after mitigation were identified for the project. Mitigation measures for Biological Resources and Cultural Resources and have been agreed to by the project proponent. The mitigations included for the project are listed below.

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Biological Resources:

Mitigation Measures BIO-1 through BIO-5 shall be implemented to ensure that the project is consistent with regulations protecting biological resources. Mitigation Measure BIO-6, Mitigation Monitoring Plan (MMP) shall be developed to ensure effective implementation and enforcement of Mitigation Measures BIO-1 through BIO-5, if applicable, during the implementation of the proposed remedial activities. The following Mitigation Measures would lessen the potentially significant impacts resulting from the proposed remedial activities.

Mitigation Measure BIO-1: Protocol surveys for the California gnatcatcher shall be conducted in the spring and early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable sage scrub habitats that may be impacted by the proposed remedial activities, within the project Site. A qualified biologist shall monitor all construction activities within a 300-foot buffer of suitable habitat. If construction activities are proposed within 300 feet of suitable habitat for the least Bell's vireo, as determined during the focused survey, a biologist shall monitor that area during breeding season (March 15 to September 15). Survey areas should include an appropriate buffer zone of 300 feet from disturbed areas. If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-2: Protocol surveys for the least Bell's vireo shall be conducted in the spring or early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable habitats that may be impacted by the proposed remedial activities, within the project Site. If construction activities are proposed within 300 feet of suitable southern cottonwood-willow riparian habitat for the least Bell's vireo, as determined during the survey, a biologist shall monitor that area during breeding season (March 15 to September 15). If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established, by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-3: Protocol surveys shall be conducted for special status amphibian species (including the arroyo toad and western spadefoot toad) in areas known to support this species. The survey shall be initiated in March, prior to the start of construction activities, by a qualified biologist. If special status amphibian species are confirmed through consultation with the California Department of Fish and Game, a disturbance-free buffer shall be designated. A qualified biologist with demonstrated expertise with amphibian species shall monitor all construction activities in areas occupied by said species.

Mitigation Measure BIO-4: Focused surveys for special status plant species should be conducted across the entire Site during the appropriate blooming periods for those species with potential to occur (i.e., suitable habitat identified on-Site). The focused plant surveys shall be conducted during the floristic period appropriate for each rare plant species identified during previous surveys, which include: Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), and San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), and short-joint beavertail (*Opuntia basi/aris* var. *brachyclada*). If rare plants are located during the focused surveys, then modification of the placement of equipment, laydown areas, and other ground-disturbing activities shall be implemented in order to avoid the plants. Populations of rare plants shall be flagged and mapped prior to construction.

Mitigation Measure BIO-5: The project Site has the potential to support birds subject to the Migratory Bird Treaty Act, which prohibits activities that result in the direct take (defined as killing or possession) of a migratory species. Pre-construction surveys shall be conducted for nesting bird and raptor species by a qualified biologist if construction activities, including vegetation clearing, would occur during the breeding season from February 1 to August 31 (generally February 15 through August 15 for most birds and February 1 through August 31 for raptors). If construction activities would occur between February 1 and August 31, the focused survey must be conducted a maximum of three days prior to construction activities. If breeding birds or raptors with active nests are confirmed, a biological monitor shall establish a 300- to 500-foot buffer around the nesting Site, and no construction activities shall occur within the buffer zone until the young have fledged from the nest or the nest fails. The buffer-zone delineation may vary depending on the species and the type of construction activity. Any active nests observed during the survey shall be mapped on an aerial photograph. The biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure no inadvertent impacts on these nests occurs.

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Mitigation Measure BIO-6: Should there be any species or habitat identified during Mitigation Measures BIO-1 through BIO-5, a Mitigation Monitoring Plan shall be developed and implemented to reduce impacts to a less than significant level. The Mitigation Monitoring Plan shall include the following elements and be approved by the appropriate responsible and/or trustee agency associated with the biological resource, as applicable:

- Authority and Purpose of the Program
- Program Adoption Process
- Organization of the MMCRP
- Monitoring Responsibility
- Enforcement Responsibility
- Mitigation Compliance Responsibility
- Dispute Resolution
- Environmental Monitor
- Construction Personnel
- General Reporting Requirements
- Public Access to Records

Mitigation Measure BIO-7: A pre-construction survey for oak trees, including saplings, shall be conducted by a qualified biologist in areas that would likely be impacted by excavation or remediation activities. If saplings are confirmed to be within a planned disturbance area, efforts shall be taken to ensure they are avoided or relocated in accordance with the City of Santa Clarita's Oak Tree Ordinance (Chapter 17.17 § 090)/Ordinance No. 89-10). Construction activities shall not occur within 5 feet of the drip line of an oak tree, if feasible. If construction activities must occur within 5 feet of the drip line of an oak tree, a permit shall be obtained in compliance with the City's Oak Tree Ordinance.

Cultural Resources:

Mitigation Measure CULT-1: Should the proposed remediation require the demolition or alteration of a building or structure, a historic evaluation shall be conducted to determine whether the building or structure is 50-years or older, or historically or archaeologically significant, or which is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California. The survey shall be conducted by a qualified architectural historian.

Mitigation Measure CULT-2: In the event that archaeological resources are encountered during the course of construction activities, all work in the immediate vicinity shall be suspended until the archaeologist and/or Native American monitor assess the discovery and appropriate treatment is determined. Any culturally significant materials, field notes, reports, or photographs shall be deposited in a museum, archeological repository, or with the appropriate Native American tribe.

In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 50973.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project Site that are not reasonably suspected to overlie adjacent remains or archaeological resources.

Mitigation Measure CULT-3: In the event that paleontological resources are encountered during construction activities, all work shall cease within the vicinity of the find until the paleontological resources are properly assessed and a qualified paleontologist determines subsequent recommendations.

	_____	11/30/10
Chief Signature		Date
STEVE LAGINGER	PERFORMANCE MANAGER	818 717 6530
Chief Name	Branch Chief Title	Phone #

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CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

PROJECT TITLE: Draft Remedial Action Plan for Operable Units 2 Through 6, Former Whittaker-Bermite Facility		CALSTARS CODING: 11140-300245-00
PROJECT ADDRESS: 22116 West Soledad Canyon Road	CITY: Santa Clarita	COUNTY: Los Angeles
PROJECT SPONSOR: Whittaker Corporation	CONTACT: Eric Lardiere	PHONE: (805) 526-5700

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:			
<input type="checkbox"/> Initial Permit Issuance	<input type="checkbox"/> Permit Renewal	<input type="checkbox"/> Permit Modification	<input type="checkbox"/> Closure Plan
<input type="checkbox"/> Removal Action Workplan	<input checked="" type="checkbox"/> Remedial Action Plan	<input type="checkbox"/> Interim Removal	<input type="checkbox"/> Regulations
<input type="checkbox"/> Other (specify):			

STATUTORY AUTHORITY:	
<input type="checkbox"/> California H&SC, Chap. 6.5	<input checked="" type="checkbox"/> California H&SC, Chap. 6.8
<input type="checkbox"/> Other (specify):	

DTSC PROGRAM/ ADDRESS: Brownfields and Environmental Restoration Cleanup Program 9211 Oakdale Avenue, Chatsworth, CA 91311	CONTACT: Jose Diaz	PHONE: (818) 717-6561
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PROJECT DESCRIPTION:

INTRODUCTION

The proposed project consists of remediating contaminated soil through the implementation of a Draft Remedial Action Plan (RAP) for Operable Unit (OU) 2 through OU6 and the deep soils of OU1. The RAP has been prepared pursuant to the *Imminent and Substantial Endangerment Determination and Order and Remedial Action Order* issued to Whittaker Corporation (Whittaker) by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) on November 22, 2002 (DTSC, 2002) to address soil contamination at the former Whittaker-Bermite facility (the Site) in Santa Clarita, California (see Figure 1: Site Vicinity Map). For effective management of Site characterization and remediation, the Site has been divided into seven operable units (OUs) with OU1 through OU6 designated for soils and OU7 for groundwater beneath the Site (see Figure 2: Site Map). OU 7 is currently under investigation and will be addressed in a separate CEQA document as explained further in this Project Description. Characterization of all OUs has been completed and remediation of the shallow soils in OU1 was completed in 2009 in accordance with the approved plans, with the exception of soil vapor extraction (SVE) operations in certain areas of OU1 that are still ongoing, but are expected to be completed in the first half of 2010. The area addressed in the RAP encompasses OU2 through OU6. It also considers the deep soils for OU1 not previously addressed in the OU1 RAP and Remedial Design (RD) documents. The Draft RAP for Operable Unit 2 through 6, Former Whittaker-Bermite Facility, August 14, 2009 is incorporated by reference.

The former Whittaker-Bermite facility Site, which is located approximately 35 miles north of Los Angeles, is located at 22116 West Soledad Canyon Road in Santa Clarita, California. The Site, which encompasses 996 acres, is situated in Township 4 North, Range 16 West, Sections 23, 24, 25, and 26 within the U.S. Geological Survey (USGS) 7.5-minute, Newhall, California topographic quadrangle (USGS, 1995). The former Whittaker-Bermite facility Site is currently inactive with approximately 29 buildings formerly used for administration and/or storage remaining. Former process, manufacturing, and test facilities have been removed. The areas to be addressed by the remedial action (including treatment, staging, and processing operations) comprise approximately 185 acres (approximately 19 percent of the total Site area).

The project Site is currently unoccupied and within the City's Porta Bella Specific Plan 4 Area (SP4). The project Site is generally bounded by Soledad Canyon Road and a commuter railway to the north, Golden Valley Road to the east, residential development and open space to the south, and Railroad Avenue to the west. Adjacent land uses include the following: public facility, community commercial, open space, riparian habitat/Santa Clara River, mobile home park, and business park (industrial) to the north; business park (industrial), public facility (school), and low- to medium-density residential development to the east; low-density residential and open space (mineral oil conservation area) to the south; and low- to medium-density residential, industrial and business park development, and open space (abandoned railroad corridor) to the west.

The former Whittaker-Bermite facility was originally subdivided by Newhall Land and Farming Company and Los Angeles Home Company in 1912 and is comprised of three parcels; Parcel 1 is the northern portion of the Site that is now occupied by the Santa Clarita Metrolink Station; Parcel 2 is the southern area of the property; and Parcel 3 is the former Whittaker-Bermite facility. Manufacturing activities were primarily located in the northern portion of the Site when it was initially developed; however, operations slowly shifted southeast to the central portion of the property. Manufacturing operations were similar at the Site from the 1930s to the 1980s. Some of the products manufactured, or developed, at the Site in varying quantities included the following:

- **Ammunition Rounds** - small caliber cartridges in the 20-millimeter (mm) and 30-mm sizes were loaded with gun propellant and assembled at the former facility.
- **Detonators, Fuses, and Booster** - devices that initiate the main charge of an explosive, containing small amounts of sensitive high explosive.
- **Flares and Signal Cartridges** - light, heat, or visual sources, infrared decoy flares, battlefield-illumination, and training versions of missile and artillery main charges; some of the primary products produced at the facility during recent history.
- **Glow Plugs and Tracer and Pyrophoric Pellets** - components of tracer bullets or shells, including the 23-mm tracer pellet.
- **Powder Charges** - non-military explosives used in oil field development.
- **Rocket Motors and Gas Generator** - rocket motors, burning a solid propellant grain to generate thrust, and gas generators, used for guidance control or to spin turbines for power generation.
- **Missile Main Charge** - the high explosive component in a missile or artillery shell.

Regulatory jurisdiction for remedial work conducted at the project Site is provided by the DTSC. Remediation Financial Inc. /Santa Clarita LLC (SCLLC), the current property owner, purchased the property from Whittaker in 1999. SCLLC agreed to clean up the contamination at the Site pursuant to an enforceable agreement with the DTSC, but subsequently filed for bankruptcy protection; consequently, DTSC issued an Imminent and Substantial Endangerment Determination and Order and Remedial Action Order, dated November 22, 2002, to Whittaker to further characterize and remediate areas of contamination at the Site.

The preferred remedial action alternative identified in the Site-Wide RAP for soils at OU1 through OU6 (the proposed project) is comprised of a combination of approaches and technologies to remediate OU1 through OU6 soils that contain perchlorate, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, where present at levels exceeding risk-based cleanup goals, and rationale used in developing the remedial strategies. The proposed remedial actions, which are discussed in greater detail below, include in-situ soil vapor extraction (SVE), shallow remedial excavation, off-Site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, ex-situ biological treatment of perchlorate-impacted soils, and in-situ biological treatment of perchlorate-impacted soils.¹ Excavated soils would be treated through combinations of off-Site disposal at an appropriate permitted facility, ex-situ SVE, ex-situ anaerobic bioremediation, and potentially through chemical oxidation (a contingent step).

GOALS AND OBJECTIVES

The overall objective of the remedial program is to implement the optimal method(s) of remediation for those areas of the Site where past manufacturing and testing operations have caused chemical impact to soils to the extent posing unacceptable risk to human health or the environment.

The specific objectives of the remedial measures are:

- Application of risk-based remedial goals for protection of human health and the environment; and
- Implementation of remedial measures that were found appropriate based on the approved Feasibility Study (FS) for source areas at the Site in order to meet the risk-based remedial goals.

¹ pending successful field pilot testing

The objectives of the remedial measures are intended to be in line with the comprehensive strategy to address soil and groundwater remediation, and will meet the following goals:

- Protection of human health
- Protection of ecological receptors
- Protection of surface water quality
- Protection of groundwater quality

The remedial goals consider different risk tolerance levels that are appropriate for future alternative land uses (e.g., commercial/industrial, multi-family residential, and open space). The achievement of remedial goals would be confirmed through sampling and analysis to demonstrate that residual concentrations of chemicals do not pose an unacceptable risk to human health or the environment. Remedial goals may also be achieved using engineering and institutional controls (i.e., deed restrictions).

The general approach on which the remedial goals were based was first presented in the document titled *Derivation of Soil Screening Levels for Protection of Human Health and the Environment, Submitted as Part of the Remedial Investigation Report for Operable Units 2 through 6*, (ENVIRON, 2007). The report included a Tier 1 Human Health Risk Assessment (HHRA) to evaluate potential risks to human health resulting from exposure to Site-related chemicals. A screening level assessment of potential risk at the Site under current conditions was performed by comparing existing soil and soil gas concentrations measured at the Site against risk-based target concentrations (RBTCs) developed for the potentially exposed populations. The RBTCs represent a conservative estimate of the average concentrations of chemicals in soil or soil gas that can be present without posing an unacceptable risk to human health.

The 2007 report also included the derivation of perchlorate and VOC soil screening levels (SSLs) for the protection of groundwater at the property line, derivation of soil/sediment screening levels for protection of surface water runoff quality, and derivation of a set of perchlorate screening levels for soil and surface water for the protection of ecological receptors at the Site.

The soil RBTCs and SSLs were developed to address the multiple objectives that must be taken into account when making environmental management decisions for the Site. These objectives include protection of human health and the environment, with SSLs derived for protection of groundwater, surface water, and ecological receptors. For protection of human health, RBTCs were derived corresponding to the proposed future land-uses of the Site, including residential, commercial/industrial, recreational, and open space areas. However, for the purposes of the RAP, the remedial goals were based on the residential (or unrestricted) land use scenario.

Although a large number of chemicals were detected in soil samples, the results of the HHRA indicated that perchlorate is the major contributor to risks associated with potential exposures to soil. Perchlorate in soil is also the primary chemical of concern for protection of groundwater, surface water, and ecological receptors. For soil gas, the primary chemicals of concern are chlorinated solvents, with tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC) the main contributors to risks to human health. These chemicals are also of concern with respect to protection of groundwater. The primary chemicals of concern at the Site and the corresponding RBTCs and SSLs are summarized in Table 1. The complete list of COCs with corresponding RBTCs and SSLs are presented in the ENVIRON 2007 report (ENVIRON, 2007).

Table 1: Chemicals of Concern

Chemicals of Concern (COCs)	Soil-Matrix RBTCs (µg/kg) ^a	Soil-Matrix SSLs (µg/kg)	Soil-Gas RBTCs (µg/L) ^b	Soil-Gas SSLs (µg/L)
Perchlorate	100	<20 ^e , 560 ^f , 280 ^g , 160 ^h	N/A ^c	N/A
PCE	1,200	32 ^e , 8,200 ^f , 4,100 ^g , 2,300 ^h	0.4	16 ^e , 4,300 ^f , 2,200 ^g , 1,200 ^h
TCE	23,000	33 ^e , 8,500 ^f , 4,300 ^g , 2,400 ^h	1.1	9.6 ^e , 2,500 ^f , 1,200 ^g , 700 ^h
VC	N/E ^d	0.85 ^e , 220 ^f , 110 ^g , 62 ^h	0.026	2.8 ^e , 740 ^f , 370 ^g , 210 ^h

^a µg/kg = micrograms per kilogram

^b µg/L = micrograms per liter

^c N/A = not applicable

^d N/E = not established

^e SSL for protection of Northern Alluvium groundwater

^f SSL for protection of Saugus Aquifer for the 0 to 20 feet depth range

^g SSL for protection of Saugus Aquifer for the 20 to 40 feet depth range

^h SSL for protection of Saugus Aquifer for the 40 to 200 feet depth range

PROPOSED REMEDIAL ALTERNATIVE

The development of the proposed remedial alternative (also referred to as the proposed project) and approach followed the completion of a series of remedial investigations, health risk analyses, literature reviews, treatability studies, field pilot tests of ex-situ soil treatment, feasibility studies, and interim cleanup and other measures protective of human health and the environment that Whittaker has conducted starting in 1995 and continuing to date under work plans submitted to and approved by DTSC. The primary chemicals of potential concern (COPCs) detected during the Site-Wide Remedial Investigation (RI), include perchlorate and VOCs (primarily chlorinated hydrocarbon compounds). Figures 3 and 4 identify those areas of potential concern based on VOC and/or perchlorate levels, respectively. There are also limited areas/volumes of soils impacted by other COPCs, including SVOCs (such as polycyclic aromatic hydrocarbons [PAH]), and selected metals. To address these COPCs, the RAP has been prepared under oversight of DTSC, to address the chemically-impacted soils at the Site.

The City of Santa Clarita has approved a large scale, mixed use development plan for the property known as the "Porta Bella Plan." These entitlements are now held by SCLLC. Under the bankruptcy court's oversight, the property is currently being marketed for development as a multi-use community. Since the drafting of the Porta Bella Plan in 1995, a significant amount of environmental investigative work has been conducted across the Site. Based upon the findings of those investigations some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures. Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.

The incorporation of the Porta Bella Plan grading envelope into this RAP, which the City of Santa Clarita has stated would remain essentially unchanged even under alternative redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades

The proposed remedial approach for the contaminated areas was developed based on the aforementioned goals and objectives, the magnitude and extent of chemical impacts, and potential human health risks. Table 2 lists those areas identified in the Site-Wide RAP where remedial action is proposed.

Table 2: Remedial Approach

OU	Area	Chemicals of Potential Concern (COPC)	Area of Concern (approximate acreage & soil volume)
OU2	1A-North, 1A-South, 4, 4/37, 6, 19, 22, 25, 27, 28, 34, 36, 37, 39, 53/54/72, 56, 56/58, 58, 63, and 74	VOCs/ Perchlorate/other COPCs	VOCs – 25.2 acres (3,181,981 yd ³), Perchlorate – 13.5 acres (556,747 yd ³) Other COPCs – 0.01 acres (163 yd ³)
OU3	14, 17, and 30	VOCs/ Perchlorate/other COPCs	VOCs – 10.3 acres (1,361,506 yd ³) Perchlorate – 4.6 acres (59,044 yd ³), Other COPCs - 0.06 acres (640 yd ³)
OU4	Hula Bowl Canyons I, II, IV, and Area 16A (stockpiled soils removed from Hula Bowl Canyon IV)	VOCs/ Perchlorate/other COPCs	VOCs – 2.6 acres (479,727 yd ³) Perchlorate – 0.9 acres (9,824 yd ³) Other COPCs – 0.01 acres (58 yd ³)
OU5	2, 12, 13, 18, 21, 31/45, 33, 41, 46, 48/49, 50, 51, 61, 67, 68, and 69	VOCs/ Perchlorate/Other COPCs	VOCs – 14.9 acres (1,621,593 yd ³) Perchlorate – 4.6 acres (135,400 yd ³) Other COPCs – 0.08 acres (817 yd ³)
OU6	1 (RCRA Unit)	VOCs	2 acres (289,687 yd ³)

REMEDIAL ELEMENTS:

The proposed project is comprised of a combination of in-situ SVE, remedial excavation, off-Site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, and ex-situ biological treatment of perchlorate-impacted soils. These remedial actions are

discussed further below. Following in-situ SVE, the perchlorate-impacted soils would be excavated and treated on-Site through anaerobic bioremediation to allow for reuse rather than off-Site disposal. If the VOC concentrations of the excavated soils exceed South Coast Air Quality Management District (SCAQMD) thresholds, then an ex-situ SVE pre-treatment step would be implemented on stockpiled soils to bring VOC emissions down prior to bioremediation processing. Preliminary testing has also demonstrated that bioremediation in combination with chemical oxidation can be used to treat soil containing both perchlorate and VOCs. Ex-situ chemical oxidation, using the same process equipment as the ex-situ bioremediation, may potentially be used as a final VOC polishing step if residual VOC concentrations exceeding risk-based target concentrations (RBTCs) and/or soil screening levels (SSLs) are present in the soil after the bioremediation step. In-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation. The proposed project includes the recognition that on-Site groundwater containment will be conducted as part of the OU7 remedy and comprehensive Site remediation strategy.

Soil Vapor Extraction (SVE)

In-situ SVE is a conventional remediation treatment used for addressing VOC-impacted soils. SVE is proposed as the treatment technology to address VOC-impacted soils for OU2 Areas 1 (OU6), 1A-South, 4, 6, 19, 27, 34, 53/54/72, and 63; OU3 Areas 14, 17, and 30; OU4 Hula Bowl Canyon I; and OU5 Areas 2, 18, 31/45, 33, and 48/49. Vapor extraction wells are installed typically as a network to cover the impacted areas in both vertical and aerial planes. The extraction well network assists with the SVE process with vacuum pumps or blowers inducing airflow through the soil. Through this extraction well network, volatile compounds and contaminated vapors from the soil are extracted into a vapor-liquid separator. The separated water is pumped into a water-phase treatment unit, which strips the contaminated vapors from the air and reroutes it to a vapor-phase-treatment unit. The extracted soil gases are run through an activated carbon filter to remove the VOCs and the cleaned exhaust is discharged to the atmosphere under a SCAQMD-permit.

Ex-situ SVE is a remediation treatment that includes placing excavated soil atop an aeration network of pipes and vacuums intended to induce volatilization of organic compounds. Soil piles are generally covered with a geomembrane to prevent volatile emissions and to prevent the soil from becoming saturated by precipitation. The process includes a system for handling off-gases. This method would be utilized on stockpiled soils to bring VOC emissions down/below SCAQMD thresholds prior to bioremediation processing.

Excavation

Specific depths of excavation of impacted areas would be determined in the subsequent remedial design document to be considered within the context of the overall Site remediation strategy and Site development plans; however, estimated volume of impacted soil to be excavated per OU is presented in Table 3. If the excavated soils contain VOCs that would potentially off-gas, excavation would be subject to SCAQMD Rule 1166. This rule would require measures to be taken during excavation, screening, stockpiling, loading, and transporting to minimize off-gassing. Such measures typically include: 1) continuous emissions monitoring during excavation; 2) water trucks to keep the soil damp during excavation and loading; 3) covering the stockpiles with plastic sheeting; 4) covering loaded soils with secured tarps; and 5) halting work during high winds. Construction equipment necessary during the proposed excavation activities may include approximately 2 excavators, 3 loaders, 1 grader, 1 rock crusher, 5 water trucks, 15 on-Site hauling trucks, and 25 off-Site hauling trucks. These volumes are preliminary estimates, and may change based on contractor needs.

OU	Estimated Volume of Impacted Soil	Estimated Volume of Clean Soil Removal	Estimated Volume of Soils to be Excavated	Estimated Off-Site Disposal Volume
OU2	556,910	221,726	778,636	163
OU3	59,986	5,241	65,227	942
OU4	9,905	23	9928	81
OU5	136,304	83,280	219,584	904
OU6	n/a	n/a	n/a	0
Total	763,105	310,270	1,073,375	2,090

On-Site Hauling activities would include transporting the planned 763,105 cubic yards (yd³) of excavated soils to allow for on-Site biotreatment and reuse, and/or staging for off-Site disposal. Approximately 2,090 yd³ of excavated soil, or less than one percent of the excavated soils, are anticipated to be transported off-Site for disposal. It is anticipated that approximately 15 trucks would be in use at any given time for the on-Site hauling of excavated soils within OU2 through OU6. In addition to the contaminated soils to be excavated, a relatively small amount of clean soils would also be removed to combine with the remediated soil before backfilling the excavated

areas.

Stockpiling would take place on bermed pads designed to prevent runoff. For the off-Site disposal option, a pad may be located near the Site's northern boundary to allow for loading onto trucks. For the on-Site treatment/reuse option, the existing Treatment Pads developed for the OU1 remedial operations are anticipated to be utilized in their current state and/or expanded for the OU2 through OU6 remediation operations. In all cases, to allow for efficient front-end processing in cleaning up the impacted areas, the soil treatment plant would need to be set up to accommodate temporary stockpiling of the impacted soils. This is due to the fact that it is grossly inefficient to excavate the source areas in piecemeal fashion. To prevent surface and groundwater impact, the plant Site would be constructed over compacted sub grade or impermeable liner (grade sloping towards a sump) with curbing around the perimeter. The ex-situ composting operation will further require the use of existing treatment cell areas and the construction of an engineered treatment-cell area where the impacted soils can be treated.

On-Site Treatment

- Ex-situ anaerobic bioremediation is a multi-step process. Excavated soils are first screened to remove rocks/objects greater than two inches in diameter. Rocks greater than two inches are then crushed and reintroduced into the soils for treatment. The screened soils are then amended by adding water, an electron donor (e.g., glycerin), and nutrients (for example, di-ammonium phosphate [DAP]) via a pug mill. The amended soil is then placed into treatment cells and covered to cure for approximately 10 to 90 days, depending on various factors including ambient temperature (e.g., summer vs. winter) and the magnitude of the initial perchlorate concentrations. Upon confirmation of successful cleanup through sampling, the soils will be removed from the cells, spread, and dried for re-use as clean backfill material.
- Chemical oxidation would potentially be used if SVE prior to or after excavation was not sufficient in reducing VOC concentrations within the soil and off-Site disposal was not viable. Chemical oxidation would be accomplished using liquid-phase chemical oxidants, such as permanganate, persulfate, hydrogen peroxide, or hydrogen peroxide in combination with catalytic iron (i.e., Fenton's reagent). As a stand-alone ex-situ process, the chemical oxidants would be added by saturating the soils with water and oxidant. The amended soils would then be placed into cells, covered, and allowed to cure for approximately 10 to 20 days. Upon confirmation of successful cleanup through sampling, the soils will be removed from the cells, spread, and dried for re-use as clean backfill material. Chemical oxidants have hazardous properties, and the systems used for handling, storing, and feeding the chemicals would be appropriately designed to mitigate the hazards in accordance with all governing codes and regulations.

Off-Site Disposal

Off-Site disposal activities would include transporting excavated soils for off-Site disposal at a properly licensed landfill. Only Class I and II landfills with liner systems would be considered acceptable for soils containing metals, SVOCs, perchlorate, and/or VOCs. Wastes must be profiled and/or analyzed for landfill acceptance either before or after they are excavated and/or stockpiled according to protocols established by the landfill permits. It is anticipated that transport to the disposal Site would be via haul trucks. All loading would occur within the Site boundaries, and approximately 112 off-Site disposal trips would be made during the 2 to 3 year construction period (maximum of 6 trips per day). Pending further analyses during the preparation of the remedial design, a separate staging and loading area may be constructed in OU5 near the north-central border of the property for this purpose. Soils would be designated for off-Site disposal only after it has been determined that they are not amenable to the available on-Site treatment processing. A transportation plan will be prepared during the Remedial Design phase of the project.

Site Preparation Activities

Prior to initiating soil excavation, certain preparation and demolition activities would need to be initiated at each area of concern to facilitate the excavation activities. Once the contractor has obtained the necessary permits/approvals and notifications are made, the necessary construction and remediation equipment would be obtained and prepared for installation. Before excavation work could begin, Site preparation activities would need to be initiated, which includes the removal of vegetation from areas to be excavated, including trees, shrubs, and grasses. Trees would be removed by personnel familiar with tree removal as some would require permits due to their proximity to utility infrastructure. There are no mature oak trees in the proposed construction zones. Aboveground vegetative debris resulting from the removal of trees, shrubs, and grass would be treated as non-hazardous waste and recycled at a green waste landfill. Concrete foundations, asphalt, and miscellaneous paved areas within the limits of the excavation would be broken up and stockpiled on-Site. Any soil attached to the removed concrete/asphalt would be brushed off in the work area prior to stockpiling and/or

hauling off-Site to a recycling center.

Removal of utility infrastructure (i.e., aboveground transmission lines/poles, subterranean water mains/laterals, and gas lines) within excavation areas would be coordinated with the relevant service provider, and relocated or protected in-place during construction activities. The California Aqueduct traverses a small area on the northeastern portion of OU2 adjacent to Golden Valley Road; however, with the exception of remedial actions associated with Area 53/54/72, the proposed project would not impact the aqueduct as construction activities are outside of the aqueduct easement. For Area 53/54/72, permission from the Los Angeles Department of Water and Power (LADWP) would be obtained to conduct the remedial activities in this area.

During the Site preparation and demolition activities, health and safety, noise and dust control measures, as described in the Health and Safety Plan (HASP) (Kanoa, 2000) shall be implemented. Pursuant to the Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (DTSC, 2002), and to address the potential presence of unexploded ordnance (UXO) or "Munitions and Explosives of concern" (MEC) at the Site, the areas with potential presence of UXO/MEC shall be screened and/or cleared by qualified ordnance experts prior to soil excavation. During excavation of areas within OU2 through OU6, ordnance experts would be on-call and will be available in the event that any suspicious UXO or MEC materials are encountered.

Once remediation has been completed, the excavated areas would be backfilled, and soils compacted to their approximate original grade. All excavations would be backfilled with successfully treated soils and/or clean soils from other areas of the Site, all of which would be verified through sampling.

These activities are expected to commence in late 2010 and take less than 6 months to complete.

Groundwater/OU7 Status – OU7 will be evaluated in a separate CEQA document when the remedial approach is identified.

To protect groundwater quality, the overall remedial approach at the former Whittaker-Bermite facility would include integration of proven risk-based soil and groundwater remedial measures as detailed above (i.e., groundwater containment and pump/treat), and evaluation of innovative in-situ technologies to address impacted groundwater, perched water, and deep soils (for OU1). Selection of effective groundwater remedies is currently being evaluated on a separate and parallel track, the results of which should be submitted to DTSC for review during 2009. Therefore, the remediation of OU7 is not the subject of this initial study. A DTSC-approved pilot program intended to evaluate containment and remediation of perchlorate- and VOC-impacted groundwater within the Saugus formation along the western boundary is in the process of being implemented. An interim remedial program for containment and remediation of perchlorate- and VOC-impacted groundwater is currently being conducted for the Northern Alluvium aquifer. The remedial approach will be protective of human health and the environment, taking into consideration the various impacted media (soil, soil-gas, surface water, perched water, and groundwater), and the exposure pathways associated with these media. The Saugus formation, partially located underneath the project Site, is one of two significant aquifers for the Santa Clara Valley River Valley Groundwater Basin, the other of which is Alluvium Formation (Alluvial aquifer). It is expected that the Site-wide remedial system would contain the chemically impacted zones of the Saugus Aquifer within the project Site through extraction and treatment of approximately 300 to 500 gallons per minute (gpm) of groundwater. A well-head treatment system for Saugus 1 and 2 production wells, which are located off Site to the northwest, is currently under construction and is expected to be on-line in 2009. The system will contain and remediate impacted groundwater within its capture zones in Saugus formation, while protecting other water supply wells downgradient of the Saugus 1 and 2 production wells.

Figure 1 – Site Vicinity Map

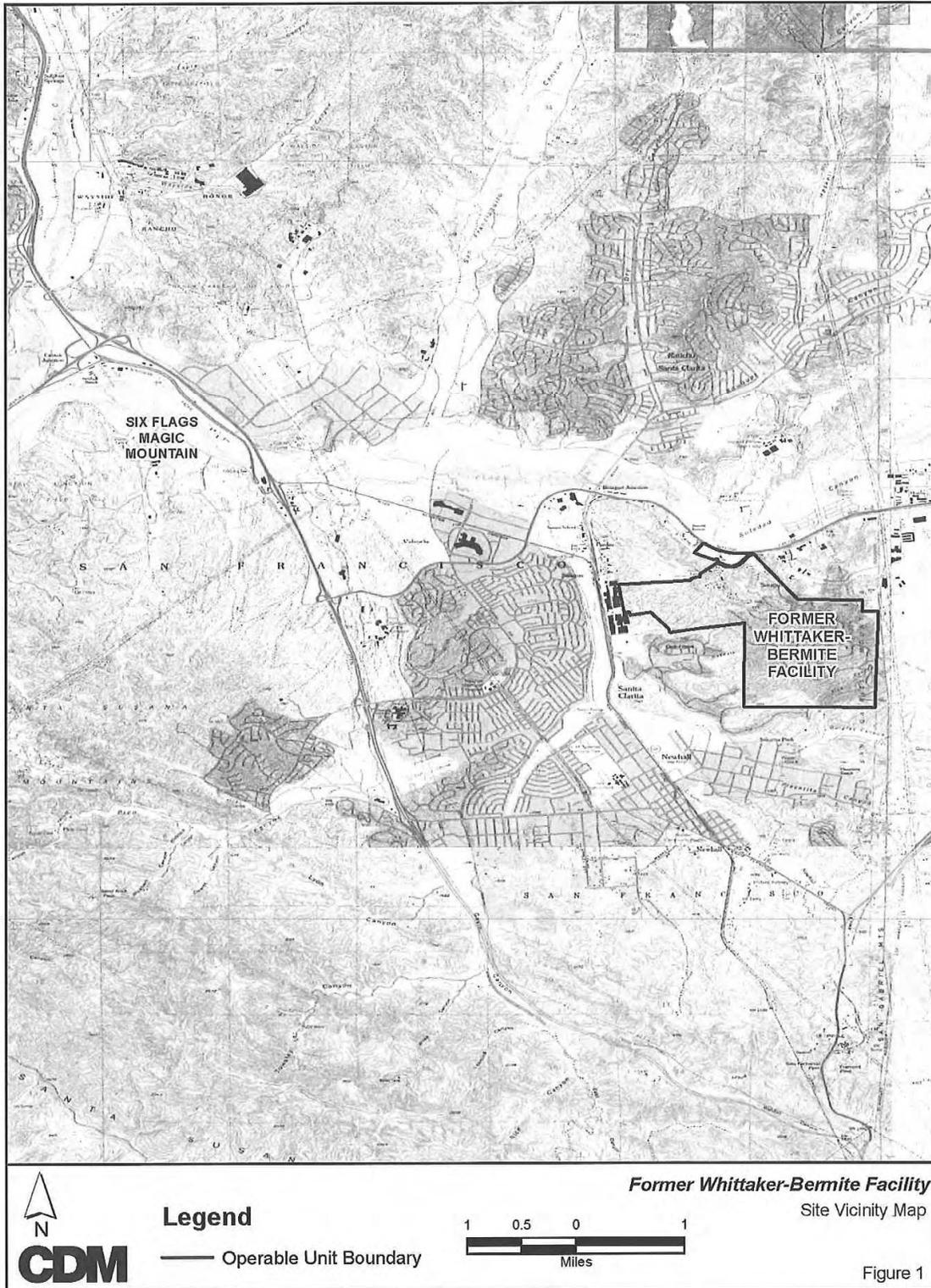


Figure 2 – Site Location Map (OUs and Fault)

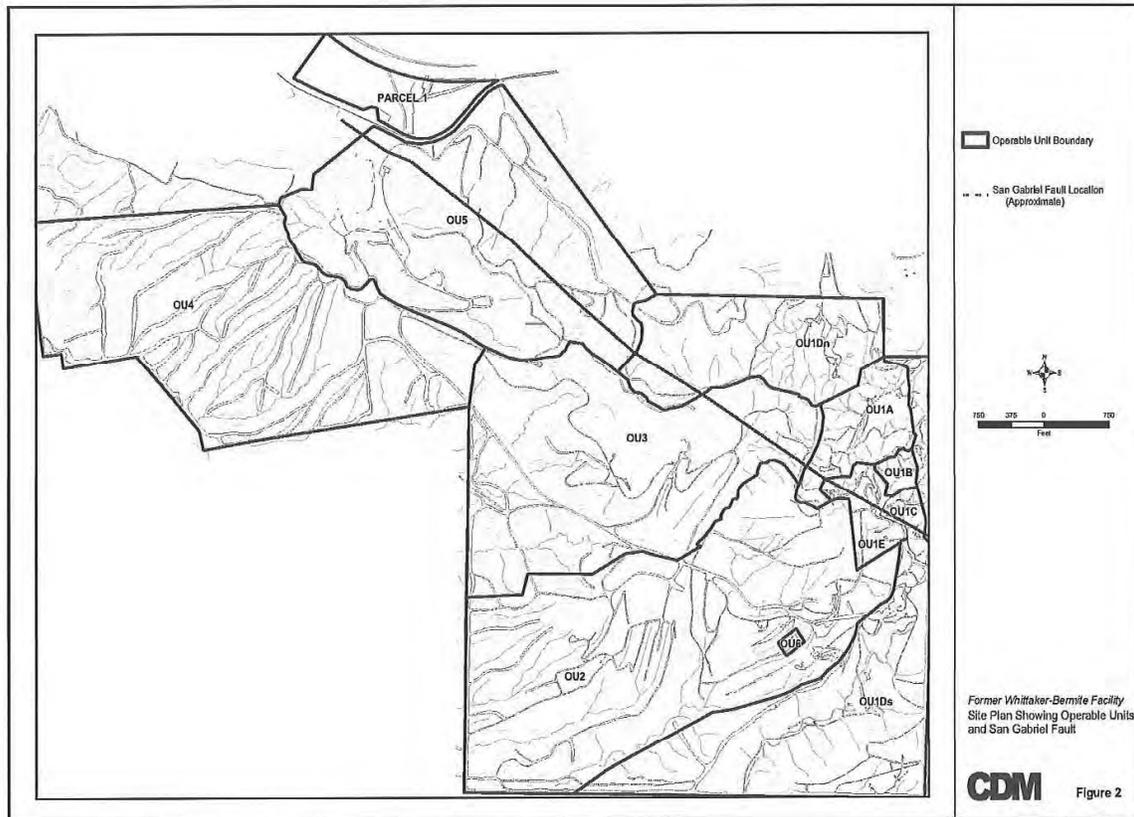


Figure 3 – VOC Areas of Concern

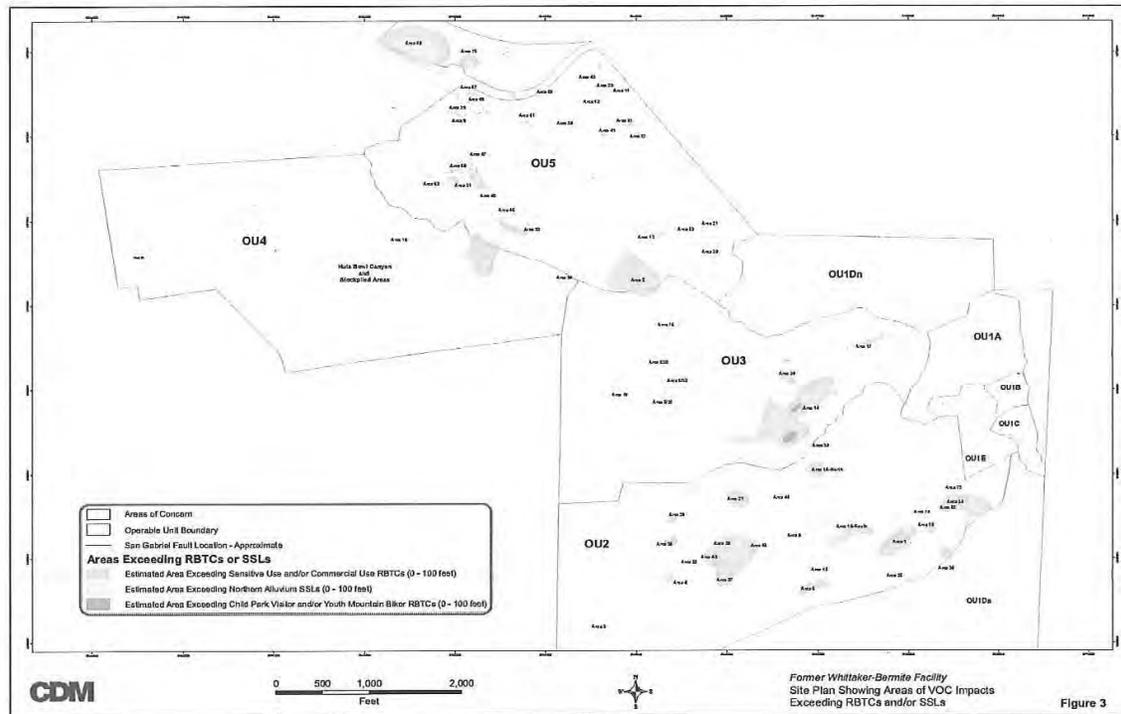
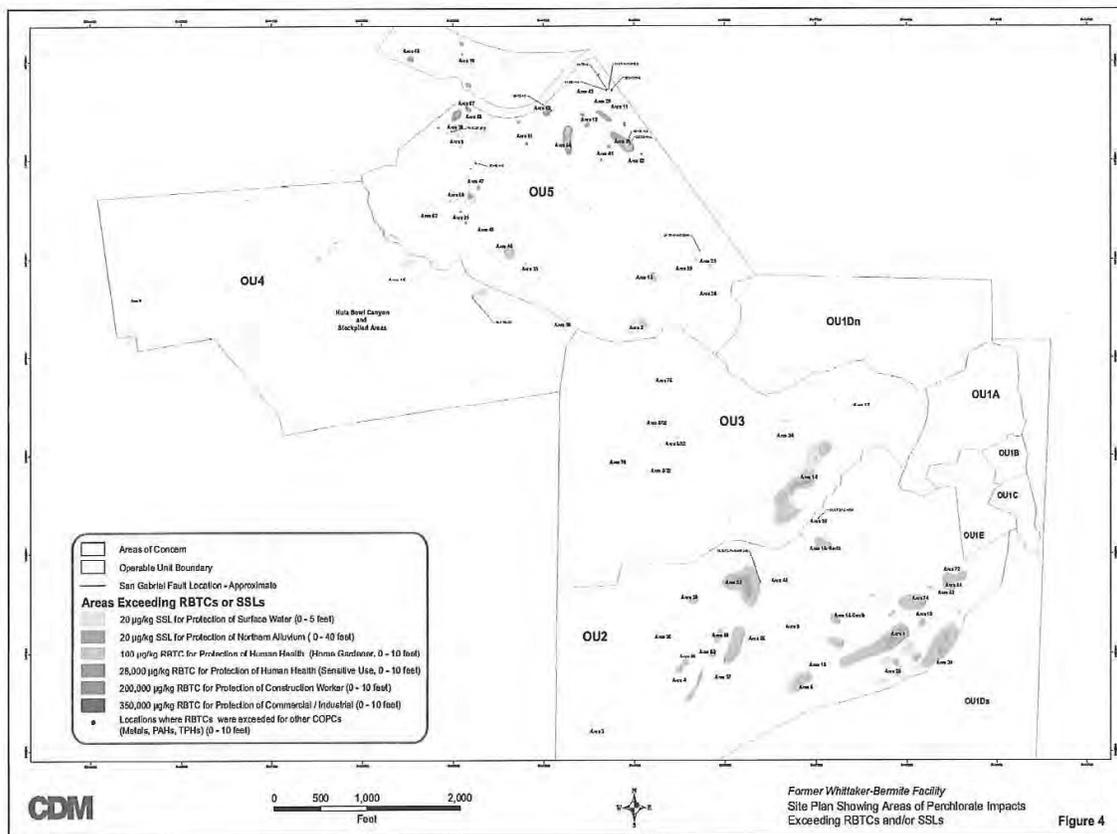


Figure 4 – Perchlorate Areas of Concern



ENVIRONMENTAL IMPACT ANALYSIS:

1. Aesthetics

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The proposed project Site is located in north Los Angeles County, in the foothills of the San Gabriel Mountains, within the City of Santa Clarita. The project Site is primarily unoccupied, but does contain abandoned/vacant structures clustered in several areas and current remediation activities associated with OU1 (which are not a part of the proposed project). The topography of the Site is rugged with approximately 405 feet of relief from the lower elevations to the upper elevations. The project area includes features such as vegetated, unvegetated, and hilly terrain, transportation and utility infrastructure, vacant and deteriorating structures, footpad and fill areas, that are the result of past development activities and remediation efforts. One paved and several dirt roads traverse the Site, which are used to travel between the scattered areas currently being remediated or hosting pilot tests.

Views to the north of the project Site are of Soledad Canyon Road (a divided six-lane highway), and the Santa Clara River bed and associated riparian habitat. Views to the north of the riparian habitat include residential and commercial development, and undeveloped graded land. Views to the northwest primarily include industrial and commercial development, intermixed with undeveloped/vacant land. Views to the northeast include unoccupied industrial land, the Santa Clarita Metrolink Station and railway, Saugus Speedway, and undeveloped open space.

Views to the west of the project Site are of commercial and industrial development such as shipping, receiving, and storage operations, railroad track and right-of-way, and Railroad Avenue. Views beyond Railroad Avenue include undeveloped open space and medium-density residential development. Views to the south/southwest include primarily low-density residential development, both developed and undeveloped open space areas, and public facilities. Views to the southeast include undeveloped, sparsely vegetated lands, utility/refinery operations, and Sierra Highway. Views to the east include Golden Valley Road, residential development, undeveloped land, Golden Valley High School, and industrial park developments.

The views of the project Site from the Soledad Canyon Road are intermittently obstructed by chain link fencing, railroad right-of-way, construction staging and entry areas, sparse vegetation and trees, and generally degraded hilly terrain. Views of the project Site from the vicinity of the Metrolink Station and Saugus Speedway include a network of gravel/dirt roads, abandoned structures, construction staging areas, and equipment. Views of the project Site from Golden Valley Road are generally obstructed by chain link fencing, graded construction staging and entry areas, steep canyon walls, and degraded vegetation and trees. Views from Railroad Avenue are primarily obstructed from industrial warehouse development and chain link fencing. The only potential sensitive viewers in the vicinity of the project Site are the residences along the southwestern portion of the Site.

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect on a scenic vista.

Impact Analysis: **NO IMPACT.** The proposed project construction and remediation system operation would not have a substantial effect on a scenic vista because neither the project Site nor its surroundings, contribute to a scenic vista. The proposed remedial activities would be similar to the current remedial process occurring at OU1, utilizing the same infrastructure already in place. Therefore, the proposed remedial activities would not have a substantial effect on scenic vistas.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis: **NO IMPACT.** The proposed project Site is not adjacent to a state scenic highway. The *Circulation Element of the City of Santa Clarita General Plan* does not designate any scenic highways within the project area, or the City's planning boundary. The proposed remedial activities would not have a substantial effect on scenic

resources within a state scenic highway because neither the project Site nor are its surroundings are located within the vicinity of such a resource. Therefore, no impacts would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Substantially degrade the existing visual character or quality of the Site and its surroundings.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed remedial activities would be located in primarily undeveloped and disturbed areas of the project Site. Because of the existing overall visual character of the project Site and surrounding area, which includes industrial uses, transportation infrastructure and a motor speedway, the proposed project is not expected to substantially degrade the existing visual quality of the project area. Although soil stockpiles may be visible from some vantage points, they would be similar in nature and would blend with the overall visual quality of the area. Viewpoints from the residential development along the southwestern portion of the Site are expected to remain as is due to the elevated and rugged terrain between the proposed remedial activities. The remediation facilities (bioremediation) would be less than a single story high and consist of asphalt pads and bioremediation bins, which would not further degrade the disturbed character of the surrounding area. The remediation facilities would be temporary in nature, lasting approximately 2 to 3 years, and are consistent with the current visual character of the project Site. Therefore, the proposed activities are not expected to degrade the visual quality of the project Site.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project may include temporary lighting associated with Site security, construction and/or operation activities, which would create a new source of light or glare. The proposed Site-wide remedial activities would occur within the boundaries of the existing Site, and be integrated within the existing remediation operations at OU1, and are not expected to create a substantial new source of light or glare. Any new source of light would be restricted to the construction area and would not be Site-wide; therefore, construction lighting would not contribute to significant light or glare pollution. Operations at the Site would comply with the City of Santa Clarita's construction and building ordinance, which requires construction activities between the hours of 7 a.m. to 7 p.m., Monday through Friday, and 8 a.m. to 6 p.m. on Saturday. Use of construction and security lighting would be minimal, and shall comply with the City's lighting ordinance. Therefore, the proposed project activities are not expected to create a new source of substantial light or glare, and impacts would be less than significant.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

California Department of Transportation (Caltrans). Los Angeles County State Scenic Highways Map. Accessed online (http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm) August, 2009.

City of Santa Clarita. City of Santa Clarita General Plan (Draft 2008). *Circulation Element and Conservation and Open Space Element.*

City of Santa Clarita. Municipal and Unified Development Code, 2009. Accessible at (<http://www.santa-clarita.com/cityhall/admin/code/>)

2. Agricultural Resources

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The project Site is located in rugged terrain in the foothills of the San Gabriel Mountains, and it is approximately 405 feet from the lower elevations to the upper elevations. Since 1937 to present day, the primary uses at the former Whittaker-Bermite facility included explosives, fireworks, and detonators manufacturing. The proposed project Site is not and historically has not been used for agricultural operations, and current soil contamination makes the Site unsuitable for such operations. Following successful remediation of the Site's contaminants, the Site is expected to eventually be developed and support land uses such as public facility, residential, commercial, and industrial. No future agricultural operations are envisioned for any portion of the Site.

The City's Open Space and Recreation land use designations allow for agricultural uses; however, the adjacent open space uses in the vicinity of the project Site do not support agricultural operations. The only suitable agricultural lands within Santa Clarita are located in the western portion of the City.

No timberland resources are located within the project Site. The Angeles National Forest (ANF), a unit of the U.S. Forest Service, makes up approximately 49 percent (237 square miles) of the City, and forms the northern and southern border of the Santa Clarita Valley. The management area of the ANF has a noncontiguous boundary, the closest of which is approximately 2 miles southeast and 5 miles north of the project Site. The ANF supports diverse biological resources, including many sensitive plant and animal species. It also provides the community with recreational opportunities, and is an important scenic resource.

Analysis as to whether or not project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis: **NO IMPACT.** The project Site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, as defined by the California Resources Agency. In addition, the proposed project would not be located within the immediate vicinity of agricultural operations and would not have the potential to affect any farmlands or other agricultural operations. Therefore, no impact would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis: **NO IMPACT.** As discussed in the baseline description, the proposed project Site would not be located on or within close proximity to lands zoned as agricultural or supporting agricultural operations. The proposed project would not conflict with existing agricultural zoning or lands under a Williamson Act contract; therefore, no impact would result from implementation of the proposed remedial operations.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code Section 4526)?

Impact Analysis: **NO IMPACT.** As discussed in the baseline description, the proposed project Site would not be located on or within close proximity to lands zoned for forest land or timberland. The proposed project would not conflict with existing forest land or timberland zoning; therefore, no impact would result from implementation of the proposed remedial operations.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

d. Result in the loss of forest land or conversion of forest land to non-forest use?

Impact Analysis: **NO IMPACT.** As discussed in the baseline description, there is no forest land located on the project Site or within close proximity. The proposed project would not result in the loss of forest land or conversion to non-forest use; therefore, no impact would result from implementation of the proposed remedial operations.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis: **NO IMPACT.** As described in the baseline section, the proposed project would not be located on existing farmland, land zoned for farming, or land within the immediate vicinity of agricultural operations. Considering this, the project would not have the potential to affect any farmlands or other agricultural operations; therefore, no impacts would result from the proposed action.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. *City of Santa Clarita General Plan, Open Space and Conservation Element Amendment*, 1999.

California Department of Conservation (CDC), Division of Land Resources Protection. California Agricultural Land Evaluation and Site Assessment Model, 1997.

California State Department of Conservation Farmland Mapping and Monitoring Program web site (<http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx>) Accessed August 2009.

3. Air Quality

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The proposed project Site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD. The project Site is located in a region that is surrounded by the Sierra Pelona Mountains on the north and the Santa Susana and San Gabriel Mountains to the south, east, and west, and the climate varies from very hot summers to cold winters, with mild temperatures throughout the year. The area experiences typical daily wind patterns for valley/mountain areas.

The SCAQMD is responsible for administering the Air Quality Management Plan (AQMP) for the SCAB, which is a comprehensive air pollution control program for attaining state and federal ambient air quality standards. The Air Quality Element of the City's Draft General Plan contains policies and goals for attaining state and federal air quality standards, while continuing economic growth, and includes implementation strategies for local programs contained in the AQMP.

The proposed project consists of remedial activity within approximately 185 acres (approximately 19 percent) of the 996-acre former Whittaker-Bermite facility. The only current activities occurring at the Site include those remediation efforts associated with OU1 and pilot testing of remediation technology. Currently, approximately 3 to 5 workers drive to, park, and work at the project Site, and no construction-related trucks are used at the Site on a regular basis.

Analysis as to whether or not project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not result in population and/or employment growth that exceeds the growth estimates included in the applicable air quality plan and would therefore be consistent with air quality plans. The remediation project would last approximately 2 to 3 years, and would require approximately 35 to 50 full-time and/or part-time workers. These employees would construct the proposed remedial facilities, excavate, haul, and process soils, and generally oversee operations at the Site.

Employment growth projections developed by the Southern California Association of Governments (SCAG) are used in the development of the SCAQMD's AQMP. The most recent AQMP included anticipated growth through the year 2030 in the emission inventory. The AQMP estimates that the labor force within the air basin will increase from 6.2 million in 2010 to 8.0 million in 2020. Employment growth generated by the proposed project would be minor and temporary, and it would not exceed the employment growth estimates used to develop the AQMP. The City estimates that the labor force will grow from approximately 58,000 to 62,000 workers during the same planning period. The minor increase in workforce spurred by the proposed project would be consistent with the General Plan and the 2007 AQMP, and the potential impacts associated with implementation of remedial activities would be less than significant. Therefore, the proposed remedial activities at the project Site would not generate or exceed state and local air quality regulations.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project Site is located within the SCAB, which is a severe non-attainment area for ozone (O₃), a serious non-attainment area for particulate matter less than 10 microns in size (PM₁₀), and a non-attainment area for particulate matter less than 2.5 microns in size (PM_{2.5}). The SCAB is a maintenance area for carbon monoxide (CO) and nitrogen dioxide (NO₂) and is in attainment for sulfur (SO₂). In determining attainment and maintenance of air quality standards, the SCAQMD has established thresholds of significance for these and other criteria pollutants. A significant impact would occur if the proposed project results in substantial emissions during construction or operation, which would exceed the established thresholds.

The construction air quality analysis was conducted for the proposed project to determine construction-related emissions using the Transportation and Land Use Programs Computer Model URBEMIS2007 and SCAQMD on-road emission factors for worker trips. The analysis estimates construction emissions from excavation and soil processing activities, and exhaust from construction equipment: 2 excavators, 3 loaders, 5 water trucks, 1 grader, 1 rock crusher, 1 screener, 15 haul trucks (on-Site hauling), 6 trucks (off-Site hauling), and 35 to 50 worker vehicles.

Construction emissions have been estimated using the URBEMIS 2007 (Version 9.2.4) computer model recommended by the SCAQMD, see Appendix A for detailed results. A summary of the emissions analysis of the proposed project is provided in Table 4 below. Reduction credits used in the analysis include dust control measures in accordance with SCAQMD Rule 403 Fugitive Dust. As shown below, daily construction emissions would not exceed SCAQMD significance thresholds. The emissions from these worker vehicle trips and from project operational activities are negligible.

As described in the project description, a SCAQMD-permit would be required for the SVE portion of the remedial activities. The permit would allow treated system effluent to be discharged into the atmosphere at the end of the SVE process (refer to the project description on pages 4-5 for more detail about the SVE process).

Results of the analysis indicate that project-related emissions would not exceed the established SCAQMD thresholds for criteria pollutants. As such, the proposed project would not result in a violation of air quality standards or substantially contribute to existing or projected air quality violations; therefore, the impact would be less than significant.

Table 4: Project Construction & Operation Emissions						
	VOC	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Construction Emissions						
Remedial Activities*	7	62	29	-	38	10
Haul Trucks	3	34	11	< 1	2	2
Workers	2	2	17	< 1	2	0
Total with Rule 403**	12	98	57	< 1	42	12
SCAQMD Construction Thresholds (lbs/day)	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

*Analysis estimates for emissions from excavation and soil processing activities and exhaust from construction equipment (2 excavators, 3 loaders, 5 water trucks, 1 grader, 1 rock crusher, 1 screener).
 **Rule 403 includes watering daily 3 times.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As indicated in Section 3 (b) above, the proposed project would not exceed established thresholds for criteria pollutants during construction and would not cause or contribute to local or regional air quality impacts during operation. Therefore, net increases of emissions generated by the project are not considered to substantially exacerbate a violation of air quality standards or significantly contribute to a cumulative air quality impact when combined with the effects of other projects, and the impact is less than significant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As discussed in Section 3 (b) above, the proposed project would not result in a violation of air quality standards or substantially contribute to existing or projected air quality violations during construction or operation. As such, the project is not expected to expose sensitive receptors, including nearby residences, to substantial pollutant concentrations. Therefore, impacts from implementation of the proposed project would be less than significant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- e. Create objectionable odors affecting a substantial number of people.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** During construction activities, sources of odor are diesel emissions from construction equipment and VOCs from sealant applications or paving activities. However, these odors would be temporary and localized. Nonetheless, applicable best management practices (BMPs) such as those in SCAQMD Rule 431 (Diesel Equipment) would, in addition to minimizing air quality impacts, also help minimize

potential construction odors. Therefore, impacts resulting from project-related odors are anticipated to be less than significant.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, Section [f]).

Impact Analysis: **NO IMPACT.** Naturally Occurring Asbestos (NOA) in California is most commonly associated with minerals within ultramafic rocks, their metamorphic derivatives, and to some extent carbonate rocks such as limestone and dolomite. The asbestos minerals include chrysotile (serpentine mineral group) and actinolite, amosite, anthophyllite, crocidolite, and tremolite (amphole mineral group) (DTSC, 2004). The geology at the site consists of alluvial sediments (terrace deposits) of the Pacoima Formation and sandstone, siltstones, and conglomerates of the Saugus Formation. The Pacoima Formation was derived from sediments of eroded crystalline granitic basement rocks of the San Gabriel Mountains. Locally, the sediments that derive the Saugus formation consist of arkosic sandstone and pebble conglomerate deposited in alluvial sands and flood plains and old buried paleosols (Dibblee, 1996). There are no occurrences of ultramafic or carbonate rocks identified in the area (DMG, 2000; Yerkes and Campbell, 1995) and therefore the presence of NOA is not likely to occur. Therefore, no impacts would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

South Coast Air Quality Management District. *Final 2007 Air Quality Management Plan*, June 2007.

City of Santa Clarita. *City of Santa Clarita General Plan, Air Quality Element*, 1991.

City of Santa Clarita. *Santa Clarita Valley General Plan, Technical Background Report*, 2004.

Yerkes R.F., and R.H. Cambell Preliminary Geologic Map of the Newhall 7.5' Quadrangle, Southern California, U.S. Geologic Survey Open-file Report 95-503,1995

4. Biological Resources

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: Surveys for biological resources were conducted by BonTerra Consulting (BonTerra) in September 2006, the findings of which were culminated in a Biological Constraints Report (BonTerra, 2006). The former Whittaker-Bermite facility is located in an unsectioned portion of the eastern side of the Newhall U.S. Geological Survey (USGS) quadrangle. Site soils include Hanford sandy loam, Ojai loam, Saugus Loam, and Yolo loam. The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2006) and California Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB) were reviewed prior to the survey to identify special status plants, wildlife, and habitats known to occur in the vicinity of the Site (CNDDDB 2006). Database searches included the Newhall, Mint Canyon, San Fernando, and Oat Mountain USGS 7.5-minute quadrangles. Plant species were identified in the field or collected for subsequent identification using standard keys. Wildlife surveys were conducted during daylight hours and included searching for and identifying diagnostic signs (i.e., scat, footprints, scratch-outs, burrows, and trails). Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris.

Vegetation

Despite historical disturbances, biological species do persist. The Site is dominated by coastal scrub and chamise chaparral. Other vegetation types present include holly-leaf cherry, California annual grassland, southern cottonwood-willow riparian, mule fat scrub, Mexican elderberry, and coast live oak. These are considered special status vegetation types due to being considered 'depleted' by CDFG and other resource agencies. In addition, coastal sage scrub covers many areas of the Site and is considered a special state type due to its limited distribution in southern California and its potential to support special status plant and wildlife species. Areas of unvegetated wash and developed, disturbed, and ornamental areas are also present throughout the Site.

Oak trees identified on the project Site include scrub oak, coast live oak, and valley oak. The oak trees on the project Site are subject to the Los Angeles County Oak Tree Ordinance Section 22.56.2060. Oak trees are also protected under the City of Santa Clarita's Ordinance No. 89-10, called the "City of Santa Clarita Oak Tree Preservation Ordinance." Under this ordinance, a city permit is required to prune, grade, excavate, trench, store or dump materials, park vehicles, construct, or otherwise encroach within five feet of the drip-line of an oak tree.

Fourteen special status plants are known to occur in the vicinity of the Site. Of these, seven are not expected to occur on the Site due to lack of suitable habitat. Three plant species that have the potential to occur at the Site and are federal-and/or state-listed as endangered include Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), and San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*). Other species that have the potential to occur on the Site include the slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), and short-joint beavertail (*Opuntia basi/aris* var. *brachyclada*). The only one of these species identified at the Site was the slender mariposa lily, observed in OU1 during focused plant surveys in 2006. Species observed in the vicinity of the Site include Nevin's barberry, observed in the San Francisquito Canyon, and the San Fernando Valley spineflower, observed at Newhall Ranch and Magic Mountain Entertainment Site.

Wildlife

The Site provides moderate to high quality habitat for wildlife species. A wide variety of common wildlife species have been observed on the Site biological surveys and construction monitoring undertaken by BonTerra. Several special status wildlife species are known to occur in the vicinity of the Site; however, only threatened or endangered species typically present constraints to development. Eight federal- or state-listed threatened or endangered species are known to occur in the project region and include: Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), mountain yellow-legged frog (*Rana mucosa*), arroyo toad (*Bufo californicus*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and coastal California gnatcatcher (*Poliophtila californica californica*). Suitable habitat only exists on the Site for two of these species: the least Bell's vireo and California gnatcatcher. The Site is not located within a critical habitat area for the least Bell's vireo, a state Species of Special Concern (SSC), as designated by the U.S. Fish and Wildlife Service (USFWS); however, a small area of marginally suitable foraging and nesting habitat exists in the southeastern portion of the Site. The California gnatcatcher is also designated as a state SSC and occurs within various associations of sage scrub vegetation, and surrounding low density chaparral. These vegetation types occur throughout the project Site; however, it is located outside and west of areas designated as critical habitat.

Special status wildlife species that have been observed on the Site during previous biological surveys or construction monitoring by BonTerra include the western spadefoot toad (*Spea hammondi*), coastal western whiptail (*Aspidoscelis [Cnemidophorus] tigris stejnegeri*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), rufous hummingbird (*Selasphorus rufus*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Dendroica petechia*), rufous-crowned sparrow (*Aimophila ruficeps*), Bell's sage sparrow (*Amphispiza belli*), Lawrence's goldfinch (*Carduelis lawrencei*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*).

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** Implementation of the proposed remediation system would primarily be located in a previously developed and disturbed habitat. While no endangered or threatened species has been observed on-Site, special status plant and animal species have been observed during previous biological surveys, including the western spadefoot toad, coastal western whiptail, Cooper's hawk, and

white-tailed kites, among others. Further, other sensitive plants and animals may occur on or in the vicinity of the Site, given their geographic range and habitat preferences. The least Bell's vireo, a state- and federal-listed endangered avian species, has a geographic range within the project Site. According to the CDFG Natural Diversity Database, the least Bell's vireo breeds in dense willows with a substantial understory and nests are usually attached to willow seedlings or other shrubs about one meter off the ground. Due to the lack of understory (habitat) and no known report of the least Bell's vireo on the project Site, the project location does not appear to be favorable for this species. The California gnatcatcher is listed as a federally threatened songbird, and a California species of concern, and has been observed within a 2-mile radius of the project Site. This species occurs within various associations of sage scrub vegetation, and surrounding low density chaparral, both of which are found within the project Site. A focused gnatcatcher survey would be required to reduce potentially significant impacts on the California gnatcatcher in areas where gnatcatcher habitat is present. Focused surveys would also be required for other sensitive species that could be present at the project Site.

Mitigation Measures BIO-1 through BIO-5 shall be implemented to ensure that the project is consistent with regulations protecting biological resources. Mitigation Measure BIO-6, Mitigation Monitoring Plan (MMP) shall be developed to ensure effective implementation and enforcement of Mitigation Measures BIO-1 through BIO-5, if applicable, during the implementation of the proposed remedial activities. The following Mitigation Measures would lessen the potentially significant impacts resulting from the proposed remedial activities.

Mitigation Measure BIO-1: Focused surveys for the California gnatcatcher shall be conducted in the spring and early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable sage scrub habitats that may be impacted by the proposed remedial activities, within the project Site. A qualified biologist shall monitor all construction activities within a 300-foot buffer of suitable habitat. If construction activities are proposed within 300 feet of suitable habitat for the least Bell's vireo, as determined during the focused survey, a biologist shall monitor that area during breeding season (March 15 to September 15). Survey areas should include an appropriate buffer zone of 300 feet from disturbed areas. If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-2: Focused surveys for the least Bell's vireo shall be conducted in the spring or early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable habitats that may be impacted by the proposed remedial activities, within the project Site. If construction activities are proposed within 300 feet of suitable southern cottonwood-willow riparian habitat for the least Bell's vireo, as determined during the focused survey, a biologist shall monitor that area during breeding season (March 15 to September 15). If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established, by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-3: Focused surveys shall be conducted for special status amphibian species (including the arroyo toad and western spadefoot toad) in areas known to support this species. The focused survey shall be initiated in March, prior to the start of construction activities, by a qualified biologist. If special status amphibian species are confirmed through consultation with the California Department of Fish and Game, a disturbance-free buffer shall be designated. A qualified biologist with demonstrated expertise with amphibian species shall monitor all construction activities in areas occupied by said species.

Mitigation Measure BIO-4: Focused surveys for special status plant species should be conducted across the entire Site during the appropriate blooming periods for those species with potential to occur (i.e., suitable habitat identified on-Site). The focused plant surveys shall be conducted during the floristic period appropriate for each rare plant species identified during previous surveys, which include: Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), and San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*). If rare plants are located during the focused surveys, then modification of the placement of equipment, laydown areas, and other ground-disturbing activities shall be implemented in order to avoid the plants, if feasible. Populations of rare plants shall be flagged and mapped prior to construction.

Mitigation Measure BIO-5: The project Site has the potential to support birds subject to the Migratory Bird Treaty Act, which prohibits activities that result in the direct take (defined as killing or possession) of a migratory species. Pre-construction surveys shall be conducted for nesting bird and raptor species by a qualified biologist if construction

activities, including vegetation clearing, would occur during the breeding season from February 1 to August 31 (generally February 15 through August 15 for most birds and February 1 through August 31 for raptors). If construction activities would occur between February 1 and August 31, the focused survey must be conducted a maximum of three days prior to construction activities. If breeding birds or raptors with active nests are confirmed, a biological monitor shall establish a 300- to 500-foot buffer around the nesting Site, and no construction activities shall occur within the buffer zone until the young have fledged from the nest or the nest fails. The buffer-zone delineation may vary depending on the species and the type of construction activity. Any active nests observed during the survey shall be mapped on an aerial photograph. The biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure no inadvertent impacts on these nests occurs.

Mitigation Measure BIO-6: Should there be any species or habitat identified during Mitigation Measures BIO-1 through BIO-5, a Mitigation Monitoring Plan shall be developed and implemented to reduce impacts to a less than significant level. The Mitigation Monitoring Plan shall include the following elements and be approved by the appropriate responsible and/or trustee agency associated with the biological resource, as applicable:

- Authority and Purpose of the Program
- Program Adoption Process
- Organization of the MMCRP
- Monitoring Responsibility
- Enforcement Responsibility
- Mitigation Compliance Responsibility
- Dispute Resolution
- Environmental Monitor
- Construction Personnel
- General Reporting Requirements
- Public Access to Records

With implementation of Mitigation Measures BIO-1 through BIO-6, the proposed remedial activities would have less than significant impacts on sensitive species and their habitats.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed remedial actions would primarily occur in areas of the project Site already associated with remedial efforts underway for OU1. Necessary excavations of contaminated soil would occur in areas of concern in OU2 through OU6, and deep soils in OU1, but none of these areas include riparian habitat or other sensitive natural communities identified in local or regional plans. Riparian communities that exist on the former Whittaker-Bermite facility are located in undisturbed areas of canyons and in the oak woodlands. The remedial activities would occur within previously disturbed or undeveloped areas and the proposed remedial system is not expected to result in adverse impacts to riparian habitat or other sensitive natural communities. Therefore, less than significant impacts are expected from the proposed actions.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis: **NO IMPACT.** The project Site does not contain federally protected wetlands as defined in Section 404 of the CWA. The proposed remedial actions would occur within previously disturbed and undeveloped areas of the project Site. Therefore, no impacts to federally protected wetlands are anticipated. However, there are on-site

drainages that are potentially regulated by the California Department of Fish and Game and/or the U.S. Army Corps of Engineers. All activities proposed within "jurisdictional drainages" will be conducted under Streambed Alteration Agreements with one of both of these agencies.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery Sites.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** The proposed remediation project would occur within approximately 185 acres of a 996-acre Site. Although currently unoccupied, historically the Site has been disturbed and habitat degraded. The project Site contains native and non-native vegetation, and scattered areas of undisturbed habitat. The adjacent lands to the northeast and southwest are developed, but contiguous open space exists to the northwest and southeast of the Site. Wildlife movement to and from these directions is possible, especially where large expanses of open space are linked. It is anticipated that the proposed project would have a less than significant impact on wildlife movement because the remedial activities proposed by the project would be temporary and located within previously disturbed areas, while alternate routes of travel are available outside of area where remedial action is occurring.

The project Site has the potential to support birds subject to the Migratory Bird Treaty Act (MBTA). The MBTA prohibits activities that result in the direct take (defined as killing or possession) of a migratory bird. This includes the nests of all native bird species, including common species such as mourning dove, Anna's hummingbird, and house finch. If construction is initiated during the peak nesting bird season (February 1 to August 31), a pre-construction survey is recommended. Mitigation Measure BIO-5 stipulated above would ensure that potentially significant impacts would be reduced to a less than significant level.

The oak trees and southern cottonwood-willow riparian vegetation type on the project Site have the potential to be used for nesting by raptors. Regulations prohibit activities that "take, possess, or destroy" any raptor nest or egg (CDFG Code 3503, 3503.5, 3513). Therefore, if construction is initiated during the raptor nesting season (February 1 to August 31), a pre-construction raptor survey is recommended. In addition to Mitigation Measure BIO-6 stipulated above, Mitigation Measure BIO-5 would ensure that potential impacts to migratory bird species, including raptor species, would be less than significant.

With implementation of Mitigation Measure BIO-5, implementation of the proposed remedial activities would have less than significant impacts on nesting migratory bird and raptor species and their potential habitat.

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As discussed on Section (4) (b), above, the project Site is not within close proximity to any biological resources protected by local policies or ordinances. The proposed remedial activities are not expected to require the removal of any mature oak tree from the Site, or occur within five feet of the drip line of any oak tree. Construction activities have the potential to impact oak tree saplings throughout the Site. However, implementation of Mitigation Measure BIO-# 7 would reduce potential impacts to a less than significant level.

Mitigation Measure BIO-7: A pre-construction survey for oak trees, including saplings, shall be conducted by a qualified biologist in areas that would likely be impacted by excavation or remediation activities. If saplings are confirmed to be within a planned disturbance area, efforts shall be taken to ensure they are avoided or relocated in accordance with the City of Santa Clarita's Oak Tree Ordinance (Chapter 17.17 § 090)/Ordinance No. 89-10). Construction activities shall not occur within 5 feet of the drip line of an oak tree, if feasible. If construction activities must occur within 5 feet of the drip line of an oak tree, a permit shall be obtained in compliance with the City's Oak Tree Ordinance.

With implementation of Mitigation Measure BIO-7, the proposed remedial activities would have less than significant impacts on sensitive species and their habitats.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis: **NO IMPACT.** The proposed project Site is not located within or near a Los Angeles County designated Sensitive Ecological Area (SEA). No adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plans govern the project Site. No conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan would therefore result from the proposed project. Thus, no impacts would occur from the proposed actions.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

- City of Santa Clarita. *City of Santa Clarita, Open Space and Conservation Element Amendment*, 1999.
- Bonterra Consulting. *Biological Constraints Report for the 996-Acre Former Whittaker-Bermite Facility*, City of Santa Clarita, Los Angeles County, California, 2006.
- California Department of Fish and Game Natural Diversity Database (CNDDB) accessed August 2009 at (http://imaps.dfg.ca.gov/viewers/cnddb_quickviewer/app.asp)
- Camp Dresser McKee, Inc. *Site-Wide Feasibility Study for Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.
- City of Santa Clarita, *Oak Tree Preservation Ordinance*, Municipal Code Chapter 17.17 § 090/Ordinance No. 89-10, Accessed (<http://www.codepublishing.com/CA/SantaClarita/html/SantaClarita17/SantaClarita1717.html#17.17.090>)
- County of Los Angeles, *Draft General Plan, Figure 6.3 Significant Ecological Areas*, 2008.

5. Cultural Resources

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The Native American Tataviam people inhabited the Santa Clarita Valley approximately A.D. 450. Archaeological data have been recorded along the Santa Clara River and Vasquez Rocks, approximately 11 miles northeast of the project Site. One of most significant cultural Sites in the area is Bowers Cave near Val Verde, approximately 7 miles northwest of the project Site.

Spanish explorers began arriving in the late 1700s, establishing the Mission San Fernando in 1797. Much of the Santa Clarita Valley was used by the Mission for Ranching. Following the Mexican Revolution in the 1820s and 1830s and secularization of Mission lands, 48,000 acres of the Santa Clarita Valley was granted to the Mayor of Los Angeles, Ignacio Del Valle. Ranching gave way to mining with the discovery of gold in the valley. Gold was discovered in the Placerita Canyon in 1842, near Oak of the Golden Dream. Mining of various mineral resources, primarily gold and copper, spurred development and settlements in the Santa Clarita Valley. Additional minerals mined in the Valley included silver, lead, gravel, and other gemstones. American settlers first discovered oil in Pico Canyon in 1865, deposits that were known previously for centuries by the Tataviam peoples. The California Star Oil Company, which later became part of the Standard Oil Company, extracted and refined the oil. One of the oil wells, Pico No. 4, had been the longest-running well

in the world before it was decommissioned in 1976, pumping oil continuously for 114 years. The oil well is now a California State Historic Landmark, located approximately 5 miles southwest of the project Site. The Southern Pacific Railroad was completed in 1876, which spurred additional development of the Pico oil field and construction of the Pioneer Oil Refinery in the 1870s, which was the state's first viable refinery. The remnants of Pioneer Oil Refinery were damaged by the 1994 earthquake, and are located approximately 3 miles southwest of the project Site. Melody Ranch, a *City Point of Historical Interest*, is located approximately one mile south of the project Site and has been in operation since the 1930s.

The proposed project Site was originally subdivided by Newhall Land & Farming Company and Los Angeles Home Company in 1912 and is comprised of three parcels: Parcel 1 is the northern portion of the Site that is currently occupied by the commuter rail station; Parcel 2 is the southern, roughly square-shaped area of the property; and Parcel 3 is the western portion of the former Whittaker-Bermite facility. Previous owners included Los Angeles Powder Company from 1934 to 1936, Halifax Explosives Company from 1936 to 1942, E. P. Halliburton, Inc., in 1942, Bermite Powder Company from 1942 to October 1967, Whittaker Corporation from 1967 to 1999, and Santa Clarita LLC from 1999 to the present. All of these companies, with the exception of Santa Clarita LLC, utilized the facility for production of munitions and explosives, including dynamite, fireworks, oil field explosives, and photoflash devices.

During most of the early history, manufacturing was restricted to the northern portion of the property and through time the plant expanded toward the southeast and into the central portion of the property. From 1934 to 1936, the Site was used to manufacture dynamite under the ownership of L.A. Powder Company. Historical information indicates that the Halifax Explosives Company manufactured fireworks at the Site from 1936 to 1942. In 1939, Golden State Fireworks made fireworks at the Site. In 1942, E.P. Halliburton reportedly manufactured oil field explosives. Production by the Bermite Powder Company was carried out from 1942 to 1967. Between 1942 and 1953, Bermite Powder Company produced a more limited line of products that included flares, photoflash devices for battlefield illumination, and other explosives. The "Bermite" name was applied to a blasting product made from a mixture of the high explosives trinitrotoluene (TNT) and cyclonite (RDX). Neither constituent was synthesized on-Site but, rather, was purchased as a raw material. From 1953 to 1967, production consisted primarily of detonators, fuses, boosters, coated magnesium, and stabilized red phosphorus.

The California Historical Resources Information System (CHRIS) records search was completed on October 13, 2009. The South Central Coastal Information Center conducted a records search for the Site and determined that no archaeological sites have been identified within the project area. The CHRIS determined that one cultural/historic resource is located within the project area; however, that site was not identified in the report due to cultural sensitivity. Only a qualified archaeologist/historian would be allowed this information. However, it is suspected this may be the railroad that runs along the Site's northern boundary. There are no National Register or California Historical Resources Inventory resources located within the project area. The CHRIS report recommended that the following should occur prior to approving any plans: 1) conduct a Phase I Archaeological Survey to determine the site's cultural sensitivity; 2) consult the Native American Heritage Commission to identify cultural or sacred sites; and 3) evaluate any historic structures (45 years or older) within the project area for local, state, or national significance.

Subsequent to receiving the CHRIS report, the project consultant, CDM, conducted additional research to identify the unnamed "cultural site" and to obtain any information on the existing structures within the project area. CDM obtained a copy of the Porta Bella Specific Plan (1995), the Porta Bella Specific Plan EIR, and the 1993 Phase I Archaeological Survey and Cultural Resources Assessment completed for the Porta Bella Specific Plan Study Area from the City of Santa Clarita. All of these reports concluded that no cultural or archaeological resources were present within the project area. These reports did not identify the existing structures at the Site as potentially significant to the community. The Phase I survey further concluded that no additional archaeological or cultural resources evaluations would be necessary. CDM also reviewed the City of Santa Clarita's General Plan, which did not identify any cultural, historical, or archaeological resources within the project area.

On October 15, 2009, the DTSC received the results of a Sacred Lands File search conducted by the Native American Heritage Commission (NAHC). The NAHC did not find presence of Native American cultural resources within a one-half mile radius of the proposed project (area of potential effect). The NAHC did, however, provide a list of seven (7) Native American parties who should be contacted regarding their interest in the Site. Those parties will receive a copy of this Initial Study for inspection.

Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** There are approximately 29 structures located on-Site. These are generally found near the primary entrance to the Site along its northern boundary, and within OU5. The proposed remediation may involve the demolition of buildings within the project Site. Should

remedial activities require the demolition or alteration of a building, Mitigation Measure CULT-1 shall be implemented to ensure that the project would not result in a significant impact.

Mitigation Measure CULT-1: Should the proposed remediation require the demolition or alteration of a building or structure, a historic evaluation shall be conducted to determine whether the building or structure is 50-years or older, or historically or archaeologically significant, or which is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California. The survey shall be conducted by a qualified architectural historian.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** The former Whittaker-Bermite facility has been disturbed by previous clean-up activities similar to those of the proposed project, and historically by manufacturing operations. No previous archeological resources have been discovered or unearthed on the project Site. However, the Santa Clarita Valley in general, and project vicinity specifically, are known to have been inhabited by Native American Tataviam peoples, making it possible that archaeological evidence may be uncovered during earth moving and/or excavation activities.

Geotechnical investigations indicate that portions of the Site are underlain by fill and/or landfill materials. With the presence of fill, the potential for encountering intact archeological resources is much lower. Additionally, most, if not all of the remedial efforts for OU2 through OU6, and deep soils at OU1, would be located in areas where remediation activities are already occurring. Given the disturbed nature of the Site, the potential for uncovering intact archeological resources is very low. However, given the sensitivity for the area, precautions should be taken for any construction activities that occur in native soils.

During construction, the contractor would follow the uniform practices used for remediation projects. In the event that archaeological resources are encountered during excavation and grading, existing construction practices require the suspension of work, in whole or in part, until it is determined appropriate to resume. In addition, in the event that such resources are found during excavation and grading, mitigation would be implemented to ensure that any potential impacts remain at a less than significant level. Mitigation Measure CULT-2 would be required as follows:

Mitigation Measure CULT-2: In the event that archaeological resources are encountered during the course of construction activities, all work in the immediate vicinity shall be suspended until the archaeologist and/or Native American monitor assess the discovery and appropriate treatment is determined. Any culturally significant materials, field notes, reports, or photographs shall be deposited in a museum, archeological repository, or with the appropriate Native American tribe.

In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 50973.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project Site that are not reasonably suspected to overlie adjacent remains or archaeological resources.

With implementation of Mitigation Measure CULT-2, potential impacts caused by disturbance of archeological resources during remedial activities would be less than significant.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Directly or indirectly destroy a unique paleontological resource or Site or unique geologic feature.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** According to a geotechnical investigation, the project Site's geology consists of sediments assigned to the Saugus formation of Pliocene to Pleistocene Age. These sediments were deposited in both fluvial and lacustrine environments resulting in textural variations from coarse- to fine-grained. Terrace deposits overlie the Saugus Formation on large portions of the Site, but are largely absent on the northeast side of the San Gabriel fault at the Site. Alluvial deposits overlie the terrace deposits, and these have been described as tan to brown to reddish-brown non-marine siltstone, sandstone, and conglomerate, locally cemented, locally clayey, poorly to well-graded and massive to well-bedded.

The project Site is located within an area that is considered to have a moderate level of sensitivity for paleontological or unique geologic resources. Although the San Gabriel Fault trends approximately north 65 degrees west through the property and has resulted in deformation of the local geologic formations, the fault has not contributed to any unique geologic resources. Thus, implementation of the project would not likely disturb any known resources, given that the project plan includes excavating and reusing cleaned, remediated soils from the project Site. Furthermore, the proposed remedial activities and construction would operate for approximately 2 to 3 years, making the project temporary.

As discussed in Section 5 (b) above, portions of the project Site are underlain by fill and/or landfill materials, and/or have been previously disturbed by manufacturing, remediation, and transportation infrastructure, and therefore, the potential for uncovering intact paleontological resources is low. However, in the event that such resources are found during excavation, mitigation would be implemented to ensure that any potential impacts remain at a less than significant level. Mitigation Measure CULT-3 is being required as follows:

Mitigation Measure CULT-3: In the event that paleontological resources are encountered during construction activities, all work shall cease within the vicinity of the find until the paleontological resources are properly assessed and a qualified paleontologist determines subsequent recommendations.

With implementation of Mitigation Measure CULT-3, potential impacts resulting from disturbance of paleontological resources would be less than significant. Therefore, a less than significant impact to paleontological resources is anticipated from project implementation.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis: **POTENTIALLY SIGNIFICANT UNLESS MITIGATED.** The project Site is located in an unoccupied area that has been disturbed by intense manufacturing activities, and more recently by remediation efforts. No known burial Sites are located within the project Site as indicated by the NAHC Sacred Lands File search results. Although encountering human remains during the proposed project implementation is considered unlikely, in the event remains are encountered during construction activities, work would be temporarily diverted from the vicinity of the find until the coroner is notified in accordance with Health and Safety Code Section 7050.5. If the remains were then determined to be of Native American descent, the coroner would have 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC would identify the person(s) thought to be the Most Likely Descendent, who would then help determine the appropriate course of action.

If any burial Site or human remains are encountered during remedial activities, implementation of Mitigation Measure CULT-2 above would reduce potential impacts to a less than significant level.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

City of Santa Clarita. *City of Santa Clarita, Open Space and Conservation Element Amendment*, 1999.

City of Santa Clarita. *City of Santa Clarita General Plan, Conservation and Open Space Element*, 2008.

Impact Sciences, Inc., 1993. *Draft Environmental Impact Report, Porta Bella Specific Plan*, Santa Clarita, California, September 1995.

W and S Consultants. *Phase I Archaeological Survey and Cultural Resources Assessment for the Porta Bella Specific Plan Study Area*, Santa Clarita, Los Angeles County, California. 1993.

Native American Heritage Commission, Letter to DTSC, Request for a Sacred Lands File search and Native American Contacts List for a Proposed Remedial Action Work Plan for the Former Whittaker Bermite Units 2 through 6; located in the Santa Clarita Valley; Los Angeles County California, October 15, 2009.

South Central Coastal Information Center, California Historical Resources Information System (CHRIS). *Record Search Results for the Whittaker-Bermite Facility Project Located in the City of Santa Clarita, California*. October 13, 2009.

6. Geology and Soils

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The project Site's geology consists of sediments assigned to the Saugus formation of Pliocene to Pleistocene Age. These sediments were deposited in both fluvial and lacustrine environments resulting in textural variations from coarse- to fine-grained. Terrace deposits overlie the Saugus Formation on large portions of the Site, but are largely absent on the northeast side of the San Gabriel fault at the Site. Alluvial deposits overlie the terrace deposits, and these have been described as "tan to brown to reddish-brown non-marine siltstone, sandstone, and conglomerate, locally cemented, locally clayey, poorly to well-graded and massive to well-bedded". The mapped geologic units include artificial fill (af), landslide deposits (Qls), colluvium (Qcol), and recent alluvium (Qal); alluvium that is indistinguishable from artificial fill (af/Qal); Terrace Deposits (Qt); the Pacoima Formation (also referred to as older Terrace Deposits) (Qp); and the Saugus Formation (Qt).

The Newhall Section of the San Gabriel Fault passes through the northern and central portions of the project Site. According to the California Department of Conservation, Division of Mines and Geology, the project Site is located within the boundaries of the State of California Earthquake Fault Zone/Alquist-Priolo Special Study Zone (CDOC, 1998). The San Gabriel Fault traverses the northwestern portion of the Site, through portions of OU1, OU3, and OU5. Bedding north of the fault dips from approximately 20 to 55 degrees to the southwest and increases up to approximately 80 degrees within the fault zone. Flat-lying to gently dipping beds of the Pacoima Formation (also known as older Terrace deposits) are prevalent in OU1Ds south of the fault zone (refer to Figure 2). Near the fault, dips of the Pacoima Formation gradually increase from flat-lying to about 20 to 35 degrees southwest.

Soils within the proposed project area are composed of two types of Group III soil (soil of the uplands), separated along a northwest-southeast trend that corresponds to the main ridgeline trend. Soil in the southwest portion of the Site is mapped as having Agua Dulce-Ojai association (#31), which generally occurs on steep foothills with 30 to 50 percent slopes. The northeast portion of the facility is mapped as having eroded soil of the Balcom-Castatic-Saugus association (#40), which generally occurs on steep mountains with 30 to 50 percent slopes. These soil associations are characterized by rain runoff, erosion hazard, moderately slow to moderate subsoil permeability, low to moderate inherent fertility, and good drainage.

Analysis as to whether or not project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - ❖ Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).
 - ❖ Strong seismic ground shaking.
 - ❖ Seismic-related ground failure, including liquefaction.

❖ Landslides.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT**, Fault rupture is caused by the actual breakage of the ground surface overlying a fault as a result of seismic activity. This can range in offsets from less than one inch to up to 20 feet, depending on the fault and earthquake magnitude. Under the Alquist-Priolo Act, the California State Geologist identifies areas in the State that are at risk from surface fault rupture. The main purpose of the Act is to prevent construction of buildings used for human occupancy where traces of active faults are evident on the Earth's surface. These zones are known as Alquist-Priolo Earthquake Fault Zones. Impacts resulting from fault rupture generally occur within the immediate vicinity overlying the fault. The zones vary in width, but average about 0.25-mile across.

A State of California Earthquake Fault Zone/Alquist-Priolo Special Study Zone, associated with San Gabriel Fault, is present at the Site from the northeastern portion of OU3 to the northwestern portion of OU5. The presence of this fault zone at the Site constitutes a moderate hazard of fault rupture; however, the proposed remedial elements would not include any permanent structures for human occupancy. The proposed project would include sub- and above-grade elements, similar to those already being utilized for remedial efforts at OU1, including SVE systems and treatment pads. Considering that the proposed remedial process would be essentially identical to the current OU1 operations, and would utilize the existing infrastructure, impacts are expected to be less than significant.

As with most locations in southern California, the project Site is susceptible to ground shaking emanating from causative faults during an earthquake. The presence of an Alquist-Priolo Special Study Zone, increases the potential for hazards associated with strong seismic ground-shaking such as ground surface rupture affecting the Site; however, the potential for hazardous events is considered moderate. Seismic activity along any of the above-mentioned faults could affect the proposed project, and would be considered during the design of proposed remedial operations and construction. Construction and excavation activities would be in accordance with applicable building and seismic code requirements. Compliance with applicable portions of existing codes pertaining to seismic building design and standards, such as the most recent edition of the California Building Code, would reduce potential adverse effects associated with seismic ground shaking.

Portions of the project Site are located in an area mapped as potentially susceptible to liquefaction. These areas are primarily located along the northern boundary along Soledad Canyon Road, and the main entrance road in OU5. Liquefaction typically occurs when near-surface (usually upper 50 feet) saturated, clean, fine-grained loose sands are subject to intense ground shaking. The potential for liquefaction depends on the magnitude of ground shaking, groundwater conditions, the relative density of the soils, and the age of Site-specific geologic units. Seismic-induced liquefaction occurs when a saturated, granular deposit of low relative density is subjected to extreme shaking and loses strength or stiffness due to increased pore water pressure. The consequences of liquefaction are typically characterized by settlement, uplift on structures, and increases in the lateral pressure of buried structures. If building foundations are not designed properly, the effects of severe liquefaction during seismic conditions may result in structural failure, leading to substantial structural damage and injury or loss of life. The proposed remediation project would not include the construction of any permanent structures or structures that would be used for human occupancy. Further, most, if not all, proposed remedial efforts would be located in areas not mapped as potentially susceptible to liquefaction. Therefore, the proposed project would not result in the exposure of structures or people to landslide associated hazards.

The project Site contains areas that are considered susceptible to seismically-induced landslides, primarily within OU1, OU3, and OU5. The proposed project elements would be constructed within relatively flat and gently sloping ground areas underlain by engineered fill or atop an asphalt liner or a concrete base, which are not considered susceptible to landsliding. No construction activities would occur on the canyon walls and major excavation activities would be properly shored or setback in accordance with geotechnical recommendations; therefore, project construction would not result in landslides. Compliance with design and/or construction recommendations in the project-level geotechnical studies prepared for the project as a standard practice would keep potential impacts within acceptable levels. Further, the proposed remedial process would be similar to that of OU1, and would utilize much of the existing infrastructure and thus would not be susceptible to damage associated with landslides. Therefore, the proposed remedial activities would not expose people or structures to potential adverse effects from landslides, and the impact is anticipated to be less than significant.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Short-term erosion impacts could occur during Site preparation activities at the project Site, as discussed in the introduction. During surface clearing, trenching, and other Site preparation activities, unearthed and exposed soil could potentially cause temporary erosion impacts. Fugitive dust would be controlled in compliance and implementation of SCAQMD Rules 403 and 1166. The following erosion control features associated with SCAQMD Rules utilized during remedial activities would include:

- Covering stockpile with plastic sheeting.
- Covering loaded soils with secured tarps.
- Prohibiting work during periods of high winds.

In the event of heavy precipitation, exposed soils could also run off the Site into public right-of-ways and/or storm drainage systems. However, Site preparation would be conducted in compliance with the City of Santa Clarita's requirement for best management practices (BMPs) and State and local codes and requirements for erosion control, grading, and soil remediation. With the implementation of these erosion control features, potential impacts associated with erosion would be less than significant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-Site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The project Site is not located in an area that is considered to have unstable soil or related hazards; therefore, no impacts would be anticipated to occur. As discussed previously, portions of the project Site are located in an area considered to be susceptible to seismically-induced landslides and liquefaction hazards. However, the proposed remediation facilities would not be permanent, thereby minimizing the potential for structural damage and failure due to landslide or liquefaction. Further, all construction and excavation activities would be conducted in compliance with all relevant building and safety standards. No further measures for geological hazards are considered necessary for the implementation of the proposed project. A less than significant impact is anticipated from the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The project Site is underlain by geologically recent alluvium composed of interlaid sand, silt, and clay eroded by the nearby Santa Clara River and its tributaries. Clays have the potential for expansion and may shrink and swell with changes in moisture content, thereby compromising the structural integrity of buildings/above-ground structures and their foundations. Proposed remedial efforts would not involve the construction of permanent structures, and are limited to grading, surface leveling necessary for the remediation facilities, which may be remotely vulnerable to the effects of soil expansion. Further, all construction and excavation activities would be conducted in compliance with all relevant building and safety standards. Because the remediation facilities would be temporary and the likelihood of soil expansion is minimal, there would not be a substantial risk to life or property. Therefore, a less than significant impact is anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis: **NO IMPACT.** The project Site and area do not include existing wastewater or sewage disposal systems. The Site would not be served by septic tanks or other alternative disposal systems. Therefore, no impacts are anticipated.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis: **NO IMPACT.** Naturally Occurring Asbestos (NOA) in California is most commonly associated with minerals within ultramafic rocks, their metamorphic derivatives, and to some extent carbonate rocks such as limestone and dolomite. The asbestos minerals include chrysotile (serpentine mineral group) and actinolite, amosite, anthophyllite, crocidolite, and tremolite (amphole mineral group) (DTSC, 2004). The geology at the site consists of alluvial sediments (terrace deposits) of the Pacoima Formation and sandstone, siltstones, and conglomerates of the Saugus Formation. The Pacoima Formation was derived from sediments of eroded crystalline granitic basement rocks of the San Gabriel Mountains. Locally, the sediments that derive the Saugus formation consist of arkosic sandstone and pebble conglomerate deposited in alluvial sands and flood plains and old buried paleosols (Dibblee, 1996). There are no occurrences of ultramafic or carbonate rocks identified in the area (DMG, 2000; Yerkes and Campbell, 1995) and therefore the presence of NOA is not likely to occur. Therefore, no impacts would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

United States Geological Survey, Newhall Quadrangle, 7.5 Minute Series: Scale 1:24,000, 1995.

California Department of Conservation, Division of Mines and Geology. *Liquefaction and Landslide Hazard Zone Map: Newhall Quadrangle*, 2003. Accessible at (<http://www.consrv.ca.gov/dmg/shezp/maps.htm>)

City of Santa Clarita. *City of Santa Clarita General Plan Safety Element*, 2001.

7. Greenhouse Gas Emissions

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: There are currently no established CEQA thresholds of significance or regulatory thresholds for greenhouse gas (GHG) emissions on a local, state, or national basis. However, the Governor's Office of Planning and Research (OPR) has developed proposed draft CEQA Guidelines amendments that include provisions related to greenhouse gas emissions. The draft amendments to the Guidelines were intended and designed by OPR to be consistent with the existing CEQA framework for environmental analysis, including but not limited to the determination of baseline conditions, determination of significance, and evaluation of mitigation measures. However, OPR did not identify a threshold of significance for greenhouse gas emissions. SCAQMD has developed a recommended threshold for assessing the significance of potential GHG emissions from industrial projects of 10,000 metric tons per year of carbon dioxide equivalent (CO₂e) emissions. This is intended to capture 90 percent of all new or modified industrial development projects. Small projects, below the 90 percent capture rate of 10,000 metric tons per year would, in aggregate, contribute a relatively small percentage of the cumulative GHG emissions within the state (estimated by SCAQMD to account for less than one percent of future 2050 statewide GHG emissions target). While the proposed project is a remediation project, and not an industrial project, in the absence of more applicable thresholds, the 10,000 metric tons CO₂e provides a benchmark for comparison purposes to assess the project's relative contribution of GHG emissions.

Analysis as to whether or not project activities would:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis: **LESS THAN SIGNIFICANT:** Total CO₂ project-related emissions were estimated for the proposed remediation project to be 5,012 metric tons for the 3-year life of the project: year 1 – 1,803; year 2 – 1,806; and year 3 – 1,403. Emissions of GHGs other than CO₂ were assumed to be negligible. Duration of the project is approximately 3 years. Therefore, during the three year remediation period, the annual CO₂ emissions would average approximately 16.7 percent of SCAQMD's recommended annual threshold of 10,000 metric tons for industrial projects.

As described above, while SCAQMD's 10,000 metric ton threshold would not apply to the proposed project, it is presented here as a benchmark for comparison purposes to demonstrate that the proposed project would not result in substantial amounts of GHG emissions that could potentially have a significant impact on the environment. Therefore, emissions of GHG associated with implementation of the proposed project are anticipated to be less than significant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis: **LESS THAN SIGNIFICANT:** As described below, several initiatives, plans, policies, and regulations have been adopted at the state and local level related to reducing GHG emissions. In general, California's goals and strategies for the systematic statewide reduction of GHG emissions are embodied in the combination of Executive Order S-3-05 and Assembly Bill (AB) 32, which call for the following reductions of GHG emissions:

- 2000 levels by 2010 (11 percent below business-as-usual)
- 1990 levels by 2020 (25 percent below business-as-usual)
- 80 percent below 1990 levels by 2050

At a local level, the City of Santa Clarita and Los Angeles County have been working cooperatively on the issue of climate change and greenhouse gas emissions to create a Climate Action Plan for the Santa Clarita Valley. The General Plan elements for land use, circulation, and open space and conservation include programs and objectives to address this issue, some of which include: limiting urban sprawl and encouraging infill development and providing incentives for infill and mixed use developments to increase density; promoting use of green buildings, materials, and techniques to lower development impacts; and increasing public transportation and pedestrian-friendly facilities. Currently, the jurisdictions within the valley are producing an inventory to identify and categorize major sources and quantities of greenhouse gas emissions valley-wide. This information will be used to measure the valley's progress against 1990 levels and the efforts toward reducing GHG emissions in the future, and will inform decision-makers so that effective policies can be formulated to address the issues of climate change, and implement measures or steps to reduce impacts.

As discussed above, GHG emissions associated with the proposed remedial activities would not be substantial, and would be well below SCAQMD's GHG threshold for construction or operations for industrial projects (used as a benchmark for comparison purposes in the absence of more a more relevant established threshold). Further, the proposed project is being proposed to provide benefits to the community by eliminating or reducing contamination, and it would not conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

The proposed project would not emit substantial amounts of GHG emissions or otherwise hinder implementation of plans, policies, and regulations to reduce GHG emissions. Therefore, implementation of the proposed project would result in less than significant impacts.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

References Used:

South Coast Air Quality Management District (SCAQMD). *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

California Air Resources Board, The California Global Warming Solutions Act of 2006 (AB32), 2006. Accessible at <http://www.arb.ca.gov/cc/factsheets/ab32factsheet.pdf>

California Air Pollution Control Officers Association. *CEQA and Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.

8. Hazards and Hazardous Materials

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The former Whittaker-Bermite facility Site has been undergoing remedial actions under DTSC oversight since the facility ceased operations in the late 1980s. The COPCs encountered in deep soils in OU1, and OU2-OU6 soils at levels that exceeded acceptable risks to human health or the environment include VOCs, perchlorate, SVOCs, and metals.

Analysis as to whether or not project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Impact Analysis: **LESS THAN SIGNIFICANT.** The proposed project includes the use, storage, transport, remediation and disposal of soils that contain compounds at levels that exceed acceptable risk to human or ecological receptors. The COPCs associated with the operation of the RAP include VOCs, perchlorate, SVOCs and metals. The remediation activities as proposed would be subject to Federal, State and local health and safety requirements. Adherence to this plan would safeguard employees and prohibit the creation of a significant hazard. The Whittaker Corporation currently holds daily safety meetings for all employees who work on the Site. A project specific Health and Safety Plan (HSP) would be prepared for the Site-wide project. Personal air monitoring will be conducted to ensure that exposures to contaminants are below Permissible Exposure Levels (PELs) as required by Department of Industrial Relations – Department of Occupational Safety and Health. In addition, work area perimeter monitoring will be conducted to ensure compliance with community action and ambient levels in accordance with South Coast Air Quality Management District, Rule 1166 and Rule 403. Summarized below are the essential elements that will be included in the HSP. The HSP describes the controls and procedures to be implemented that will minimize the incidents, injury, and health risks associated with the remedial activities conducted at the Site. The HSP will be prepared according to the requirements of 29 CFR 1910.120, and CCR Title 8 General Industrial Safety Order (GISO) 5192 for work at hazardous waste sites. The HSP will contain, at a minimum, the following elements:

- A hazard evaluation;
- Names of key personnel and the site safety coordinator;
- A statement that personnel have completed training required by 29CFR 1910.120 and CCR Title GISO 5192;
- Medical surveillance requirements and personal protective equipment to be used by site personnel;
- The types and frequency of personal and area air monitoring, instrumentation and sampling techniques for monitoring of health and safety;
- Site control measures, including the designation of work zones (e.g., exclusion, contamination-reduction and support zones) and safe work procedures for work near structures or topographic breaks, slopes, wall, etc;
- Management of wastes and decontamination procedures for personnel and equipment;
- Noise and dust control procedures and action levels;

- Site transportation procedures;
- Contingency plans including telephone numbers and contact names; and
- Location and routes to the nearest emergency and non-emergency medical care facilities.

Project impacts are expected to be less than significant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The project is not expected to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. During soils excavation, off gassing may be present as well as perchlorate and VOCs within the soils. Emissions would be controlled by compliance of SQAMD Rule 1166. The remediation facilities would be constructed on designated pads which would be constructed with berms to prevent run-off and further soil contamination. In addition, during excavation and transportation of soils, the proposed project would comply with the SCAQMD Rules 403 which includes, covering the soils with tarps, washing the trucks to keep the soil on-Site, and keeping the soil moist to prevent winds transporting it elsewhere. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis: **NO IMPACT.** The proposed project would include excavation, transportation, and remediation of hazardous materials and potential emission of hazardous gasses. However, the closest existing school to the proposed project is located greater than 0.25 mile away from the construction area. Further, the proposed remedial process for OU2 through OU6 would be identical to the current remediation activities at OU1. Therefore, no impacts would be anticipated to occur from the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- d. Be located on a Site which is included on a list of hazardous materials Sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project is located on a designated hazardous Site, but does not, as a result, create a significant hazard to the public or the environment. To the contrary, the proposed project consists of the remediation of chemical impacts at the Site, which will reduce the potential for exposure and hazards to the public. Furthermore, over 99 percent of the impacted soils to be addressed at the Site will be handled entirely on Site, with monitoring and safety measures in place to minimize the potential hazards to the public and the environment. Finally, the achievement of remedial goals will be confirmed through sampling and analysis to demonstrate that residual concentrations of chemicals do not pose an unacceptable risk to human health or the environment. Remedial goals may also be achieved through the use of deed restrictions, institutional controls, and engineering controls. Therefore, less than significant impacts would occur from the proposed project.

A database search was conducted by Environmental Data Resources, Inc. (EDR) to identify potential areas of groundwater and/or soil contamination on-Site or in the vicinity of the project Site. The records search included numerous government databases such as those of registered underground storage tanks (USTs), operators of hazardous waste generators, former landfills and Sites with known hazardous materials release. The database search results are summarized in Table 5, followed by a description of the database and results. The EDR executive summary is provided as Appendix A.

Table 5: Summary of the EDR Database Search of Properties in the Project Vicinity			
Facility Name	Address	Proximity	Description
CERCLIS Sites Within 0.5 Mile			
Keysor Century Corporation	26000 W. Springbrook Ave.	0.498 mi.	Active site that generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any one time.
CERCLIS Sites Within 0.25 Mile			
Bermite Division	22116 W. Soledad Canyon Rd.	0 ft.	Active Small Quantity Generator: Handler is engaged in the treatment, storage or disposal of hazardous waste.
RCRA-SQG Sites Within			
Bermite Division, SANTA CLARITA, LLC	22116 W. Soledad Canyon Rd	0 ft.	Active Site used for the treatment, storage or disposal of hazardous waste.
NPDES Sites Within 0.25 Mile			
Whittaker-Bermite Facility (Former)	22116 Soledad Canyon Rd.	0 ft.	Active: discharger address 1955 N. Surveyor Ave.
Porta Bella Project	22116 Soledad Canyon Rd.	0 ft.	Active: stormwater – construction; discharge address 22116 Soledad Canyon Rd.
Former Whittaker Bermite Facility	22116 Soledad Canyon Rd.	0 ft.	Active: stormwater – construction.
CORTESE Sites Within 0.5 Mile			
Not Reported	26000 Springbrook	0.490 mi.	Inactive: A leak in a process hose caused the spill of approximately 100 gallons of processed water.
CORTESE Sites Within 0.25 Mile			
Whittaker Bermite/Rail Station	22116 Soledad Canyon Rd.	0 ft.	
Bermite, Division Of Whittaker	22116 Soledad Canyon Rd.	0 ft.	
Whittaker/Bermite Facility	22116 Soledad Canyon Rd.	0 ft.	Active State Response
Whittaker Bermite/Rail Station - Site A	22116 W. Soledad Canyon Rd.	0 ft.	Active State Response
HIST Cal-Sites Within 0.25 Mile			
Whittaker/Bermite Facility	22116 Soledad Canyon Rd.	0 ft.	Active Workplan: remedial investigation/feasibility study OU1; Preliminary Endangerment Assessment.
Los Angeles Co. HMS Sites Within 0.25 mile			
Former Bermite-Whittaker Site	22116 W Soledad Canyon Rd.	0 ft.	
Bermite Div-Whittaker	22116 W Soledad Canyon Rd.	0 ft.	
LUST Sites Within 0.5 Mile			
CSDLAC Saugus WRP	26200 Springbrook Ave.	0.487 mi.	Inactive: past diesel fuel leakages
CA WDS Sites Within 0.25 Mile			
Former Whittaker-Bermite WTP	22116 Soledad Canyon Rd.	0 ft.	Non-hazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous solid/semisolid, and liquid wastes (e.g., garbage, trash, refuse, paper, demolition and

Table 5: Summary of the EDR Database Search of Properties in the Project Vicinity			
Facility Name	Address	Proximity	Description
			construction wastes, manure, vegetable or animal solid and semisolid waste).
HAZNET Sites Within 0.25 mile			
Santa Clarita LLC	22116 We Soledad Canyon Rd.	0 ft.	0.0250 Tons other inorganic solid waste; disposal method - Treatment/Tank; Off-specification, aged, or surplus organics; other organic solids disposal/landfill.
HIST UST Sites Within 0.25 Mile			
Bermite Div-Whittaker	22116 W Soledad Canyon Rd.	0 ft.	4 previous USTs used for diesel, unleaded, and regular fuel, and waste.
SWEEPS UST Sites Within 0.25 Mile			
Bermite Div-Whittaker	22116 W Soledad Canyon Rd.	0 ft.	1 UST reported.
RESPONSE Sites Within 0.25 Mile			
Whittaker Bermite/Rail Station - Site A	22116 West Soledad Canyon Rd.	0 ft.	Storage of Hazardous Waste containers, dumpsters, and tanker-tractor trailers; stained areas were noted on the property.
ENVIROSTOR Sites Within 1 Mile			
William S. Hart Union School District	21469 Redview Dr.	0.923 mi.	Potential soil contamination from past vehicle maintenance uses; release of hydraulic fluid into the soil occurred at the school district's transportation service building. It occurred at the underground hydraulic hoist in the service garage. Approximately 30 cubic yards of impacted soil was excavated and disposed off-site. Detectable levels of TPH and Toluene are still present in the site's soil.
Thatcher Glass Manufacturing Company	25655 Springbrook Avenue	0.662 mi.	Previously used for manufacturing – Other Activities; hazardous waste - related problem.
ENVIROSTOR Sites Within 0.50 Mile			
Saugus Swap Meet Property	22500 Soledad Canyon Road	0.406 mi.	Previously used for agricultural livestock, agricultural - row crops, fuel terminals, machine shop, vehicle maintenance.
Not Reported	26000 Springbrook Road	0.490 mi.	Industrial Plant - processed water - Pump failed to start causing the release. Flowed onto the ground (dirt) within the facility.
ENVIROSTOR Sites Within 0.25 Mile			
Whittaker Bermite – OU6 Area 317	22116 W Soledad Canyon Rd	0 ft.	Active Corrective Action: Manufacturing - other, research - weapons, waste - industrial waste line - 1.2 acres tetrachloroethylene (PCE), trichloroethylene (TCE), perchlorate contamination.
FINDS Sites Within 0.25 mile			
Whittaker Bermite/Rail Station - Site A	22116 West Soledad Canyon Rd	0 ft.	Other pertinent environmental activity identified at the Site.
Whittaker Off-Site Groundwater/CLWA (Castaic Lake Water Agency)	Area West & North Of 22116 Soledad Canyon Road	0 ft.	
VCP Sites Within 0.5 Mile			
Saugus Swap Meet Property	22500 Soledad Canyon Road	0.406 mi.	Past use agricultural - livestock, agricultural - row crops, fuel terminals machine shop, vehicle maintenance; TCE, lead, and perchlorate confirmed.
Not Reported	26000 Springbrook Road	0.490 mi.	Landfill and has surface impoundments; illegal disposal of wastewater to an un-lined pond from 60s; and discharge of toxic wastewater.
VCP Sites Within 0.25 Mile			
Whittaker Off-Site Groundwater/CLWA (Castaic Lake W)	Area West / North Of 22116 Soledad Canyon Road	1362 ft.	Active VCP

As described in Table 5 above, the project Site is within the vicinity of sites listed on various hazardous materials databases. The known contamination Sites in the project vicinity are in various stages of regulatory review and would be expected to continue through the compliance and enforcement processes of the affected regulatory agencies. Based on the EDR report, the project Site is on the following regulatory listings:

- CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- RCRA – SQG - The Resource Conservation and Recovery Act - Small Quantity Generator contain an inventory of facilities that generate between 100 kg and 1,000 kg of hazardous waste per month or meet other applicable requirements of RCRA.
- NPDES – National Pollutant Discharge Elimination System program was established by the federal government to control point-source discharges of water pollution, including stormwater. There are three listed for the project Site and vicinity.
- CORTESE – Hazardous Waste & Substances Sites List that are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency. There are six listings with the project Site and vicinity.
- HIST Cal-Sites – The Cal-Sites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.
- Los Angeles Co. HMS – Industrial Waste and Underground Storage Tank sites database kept by the County Department of Public Works. The project Site and vicinity contains one listing on this database.
- LUST – The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leading underground storage tank incidents. The data come from the State Water Resources Control Board (SWRCB) Leaking Underground Storage Tank Information System. The project Site status is listed as Completed – Case Closed.
- CA WDS – Waste Discharge System sites which have been issued waste discharge requirements by the State Water Resources Control Board. The project Site has been issued one.
- HAZNET – Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. One record was listed for the project Site.
- HIST UST – The Hazardous Substance Storage Container Database contains a historical listing of UST sites. The list is no longer updated; current data is available through local agency sources. One tank is listed at 22116 W. Soledad Canyon Road.
- SWEEPS UST- The Statewide Environmental Evaluation and Planning System was updated and maintained by a company contracted by the SWRCB. The list is no longer updated or maintained. Current data is available through local agency sources.
- RESPONSE – State Response Sites Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. One release was identified in this database for the project Site.
- ENVIROSTOR – EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further; the Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's). The database includes the following site types: Federal Superfund Sites (National Priorities List [NPL]); State Response, including Military Facilities and State Superfund; Voluntary

Cleanup; and School Sites. EnviroStor provides similar information to the information that was available in Cal-Sites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment.

- FINDS – Facility Index System/Facility Registry System contains both facility information and listing of sources that contain more detail. The project Site listing in the RCRA-SQG inventory is referenced.
- VCP – Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs. There are three Voluntary Cleanup Plans (VCPs) listed within the project Site and vicinity.

As throughout the document, soil excavation is a major element of Site remediation and therefore, contaminated soils would be encountered. The proposed project is under the oversight of DTSC. The soils would be excavated, treated or disposed of to the satisfaction of the applicable regulatory agencies, which could include the LAFD, LARWQCB, and/or DTSC.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not impair implementation of, or interfere with, an emergency response or evacuation plan. Elements of the proposed project would adhere to existing emergency response and evacuation plans in the event of an emergency. The proposed project would conform to all City of Santa Clarita access standards to allow adequate emergency access. In addition, emergency access to, or via, adjacent streets are not expected to be adversely impacted during construction because the remediation facilities are located adjacent to the second Site access entrance. Therefore, the proposed project would not interfere with an emergency response plan or emergency evacuation plan. No significant impacts are anticipated to occur from the proposed project. Refer also to section 14 (a), Public Services for additional information.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. *City of Santa Clarita General Plan Environmental Impact Report*, 1991.

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

South Coast Air Quality Management District. *Final 2007 Air Quality Management Plan*, June 2007.

Environmental Data Resources (EDR), Inc. 2009, EDR Radius Map Report with GeoTrack for Former Whittaker-Bermite Facility, 2009

9. Hydrology and Water Quality

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The former Whittaker-Bermite facility is located within the Santa Clara River basin/watershed (USGS Hydrologic Unit Code [HUC] 18070102). The watershed comprises approximately 1,634

miles², which is primarily the area that drains into the Santa Clara River. The northern drainage area, which includes four watershed sub-areas, generally delivers seasonal runoff to the Santa Clara River. The southern drainage area, which includes eight watershed sub-areas, generally delivers seasonal runoff either southwest to the South Fork of the Santa Clara River or south to Placerita Creek. Placerita Creek flows west to the South Fork of the Santa Clara River, which flows north to meet the main course of the Santa Clara River approximately one mile northwest of the Site (near Bouquet Junction). Because rainfall amounts are typically low, watercourses on the Site flow only during periods of precipitation and for limited durations.

With the exception of the upper reaches of Oro Fino Canyon (which enters the former Whittaker-Bermite facility several hundred feet north of the southeastern corner of the facility boundary), drainages that cross the facility have their origins within the facility boundaries. The upper reaches of the drainage sub-areas occur in the steep upper canyons along ridgelines. A Streambed Alteration Agreement (SAA) has already been issued by CDFG that covers portions of some on-Site drainages (CDFG 2005). This agreement would have to be modified by CDFG prior to entering and modifying the bed, bank, or channel of any non-permitted streambeds on the project Site. Regulatory permits or agreements from USACE and CDFG would be required prior to any alteration of any jurisdictional area not already permitted by the existing Streambed Alteration Agreement. A jurisdictional delineation covering the entire project Site is planned to be completed in order to address agency issues.

There are two regional groundwater aquifers in the vicinity of the project Site: the Alluvial Aquifer and the Saugus Aquifer. The Alluvial Aquifer is associated with the Santa Clara River which runs east to west down the middle of Soledad Canyon just beyond the Site's northern boundary. One of its tributaries runs north to south, just beyond the Site's western boundary. At the base of the tributary canyons that form the project Site's principal drainages, alluvial deposits in the bottom of the tributary drainages interfinger with sediments deposited in the main river channel. The regional Saugus Aquifer is present throughout the project Site and vicinity, and underlies the Alluvial Aquifer under the northern areas of the Site. The Saugus Aquifer consists of a series of discrete leaky water-bearing zones that occupy the more permeable intervals (sandstones and conglomerate) of the Saugus Formation, typically under confined to semi-confined conditions. The terrace deposits that overlie the Saugus Aquifer southwest of the San Gabriel Fault are typically unsaturated. Perched groundwater is encountered in some areas of the elevated inland portions of the Site, most commonly at the contact between the terrace deposits and the Saugus Formation.

Analysis as to whether or not project activities would:

- a. Violate any water quality standards or waste discharge requirements.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Site preparation would temporarily increase the amount of soil erosion and siltation into area drainage systems. As part of the Clean Water Act (CWA), the U.S. Environmental Protection Agency (USEPA) has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharges and industrial pollutant discharges, including construction-related activities. However, because the extracted contaminated water from the soil would be treated on-Site, the Los Angeles Regional Water Quality Board (LA-RWQCB) would need to review and comment the proposed project. A NPDES permit would need to be issued since water would either be discharged or reused, and the proposed project Site is greater than one acre. The State Water Quality Control Board regulates and administers the NPDES permitting program in California for proposed projects that are greater than one acre. Project construction would occur in accordance with applicable discharge requirements set forth by the LA-RWQCB. In addition to State and local code requirements for erosion control, implementation of the erosion control features (presented in Section 6 above) would further minimize the potential for short-term construction-related soil erosion impacts that could lead to sedimentation in surface water run-off. Thus, the proposed project would not violate water quality standards or waste discharge requirements. Therefore, water quality impacts would be less than significant as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The City of Santa Clarita receives its water from three primary sources: the Los Angeles Aqueduct, local groundwater, and purchased water imported by the Metropolitan Water District of Southern California. Recycled water is also a component of this water source for the City. Water would be delivered to the project Site by water trucks, and they would not create a substantial demand upon groundwater sources or substantially change the amount of groundwater at the project Site. The water would be used to control dust generation during remedial activities. The proposed remedial activities would not require the construction of groundwater production wells or the depletion of groundwater supplies. Nor would the project interfere with groundwater recharge, as the Site would be unsuitable for recharge activities. Therefore, the proposed project would result in a less than significant impact.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Substantially alter the existing drainage pattern of the Site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-Site.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Minimal grading/surface work at the project Site would occur in disturbed areas and not in undisturbed areas that are near riparian and streams. In addition, erosion would be minimal because the proposed project would follow BMPs, which would keep surface run-off to a minimum and the remediation facilities would have berms surrounding each remediation pad preventing run-off and contamination. Furthermore, as part of the Site-wide storm water management, temporary retention/desilting structures and basins are planned downstream of impacted areas to catch runoff. Water collected in the retention/desilting basins would be treated and discharged in accordance with NPDES permit requirements. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- d. Substantially alter the existing drainage pattern of the Site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-Site.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As discussed in Section 9 (c) above, minimal changes to the amount of non-permeable surfaces would occur at the project Site. No change to existing drainage patterns would occur except for the addition of water discharge from the remediation facilities. Existing drainage patterns are not expected to change as part of the proposed project. Consequently, the proposed project is not expected to have an adverse effect on absorption rates, drainage patterns, or the rate and amount of surface runoff because the project would use BMPs, as well as have berms designed as part of each remediation pad to prevent erosion and additional run-off.

The existing storm drain infrastructure in the vicinity of the project Site would be able to adequately accommodate any changes to Site runoff to preclude flooding hazards. Furthermore, as described above in Section 9 (c) above, the proposed project would not alter the course of any waterways. Therefore, the proposed project is not expected to result in a substantial increase in the amount of surface runoff that would result in the alteration of drainage patterns or flooding. Less than significant impacts are expected as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project construction and remediation system operation is not expected to create or contribute to runoff water in excess of the capacity of the existing stormwater drainage system serving the project Sites and surrounding areas. As discussed in Sections 9 (c) and (d), above, project activities would not affect the existing stormwater drain system. The existing stormwater drainage system would accommodate the additional stormwater flows that may be generated by the small increase in non-permeable areas. Therefore, less than significant impacts would result from the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

f. Otherwise substantially degrade water quality.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As described in Sections 6 (b) and 9 (a), above, during the project, BMPs would be implemented relative to on-Site runoff sources. Implementation of standard practices and the erosion control features identified in Section 6 (b) during construction activities would prevent sediment-laden runoff from exiting the project Site. However, because extracted contaminated water from the soil would be treated as part of the remediation facilities and the proposed project Site is greater than one acre, a NPDES permit would need to be issued because water would be either discharged or reused. Therefore, the proposed project is not expected to significantly degrade water quality. Impacts would be less than significant as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

Impact Analysis: **NO IMPACT.** Flood hazard maps for the project area indicate that the project Site is not within a 100-year or 500-year floodplain. Flood data for the project Site were obtained from the Safety Element of the City of Santa Clarita General Plan. Therefore, the project would not place structures in a 100-year floodplain and would not be expected to impede or redirect flood flows. No impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis: **NO IMPACT.** The proposed project Site is not located near any levees or dams. The remediation facilities would be located on top of a hill and would not be located in a low lying area. Given the location of the remediation facilities within the project Site, no impacts associated with flooding would be anticipated to occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

i. Inundation by seiche, tsunami or mudflow.

Impact Analysis: **NO IMPACT.** A seiche is a surface wave created when a body of water shakes, usually from an earthquake. Seiches are of concern where water storage facilities are located immediately adjacent to proposed development Sites. The project Site is not located near any lakes, but the Los Angeles aqueduct runs through a small portion of the project Site in the northeastern corner. However, the aqueduct is cemented and is undetected from the project Site given that the water flows through pipes underground. The chances of the project Site being affected if a

disaster was to occur with the aqueduct is remote given the elevation of the project area. Therefore, no impacts are expected as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

United States Environmental Protection Agency. *Preliminary Remediation Goals*, Region 9 San Francisco, 2002.

United States Environmental Protection Agency. *Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment*, 2001. Accessible at (<http://www.epa.gov/region4/waste/ots/ecolbul.htm>).

10. Land Use and Planning

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The City of Santa Clarita approved its current General Plan and associated Environmental Impact Report (EIR) in 1991, and Los Angeles County's Santa Clarita Valley Areawide Plan was last amended in 1990. Since both planning documents have become outdated, the City and County have begun the process of updating their plans jointly in an effort to address common planning issues throughout the Santa Clarita Valley. The City of Santa Clarita General Plan update is currently in the draft phase, and is expected to be finalized and adopted by 2010.

The former Whittaker-Bermite facility is within the City of Santa Clarita planning area, and is zoned Specific Plan 4 (**SP4**). The current land use at the Site is Vacant/Industrial. The City approved the *Porta Bella Specific Plan* in 1995, which encompasses the entire project Site. However, SCLLC filed for bankruptcy and the Porta Bella Plan is no longer being pursued. Future development of the Site would likely include mixed-uses including single- and multi-family residential, commercial, office, and open space, and recreational use. The project Site falls within the Newhall-Canyon Country Community Planning District, which implements specific land use policy standards of the Santa Clarita Citywide General Plan Framework. The project Site is generally bounded by Soledad Canyon Road and a commuter railway to the north, Golden Valley Road to the east, residential development and open space to the south, and Railroad Avenue to the west. Adjacent land uses include the following: public facility, community commercial, open space, riparian habitat/Santa Clara River, mobile home park, and business park (industrial) to the north; business park (industrial), public facility (school), and low- to medium-density residential development to the east; low-density residential and open space (mineral oil conservation area) to the south; and low- to medium-density residential, industrial and business park development, and open space (abandoned railroad corridor) to the west.

The area adjoining the Site's southwestern boundary has supported residential development for the past two decades, prior to which, like most of the surrounding land, was sparsely developed. Construction of Golden Valley Road along the Site's eastern boundary was completed in 2002. The Saugus Speedway is located adjacent to and west of the commuter rail station and is currently used for swap meets. The remainder of the adjoining land is currently undeveloped.

Analysis as to whether or not project activities would:

a. Physically divide an established community?

Impact Analysis: **NO IMPACT**. The proposed remediation system would utilize existing infrastructure and facilities associated with OU1 at the Site. All proposed activities would occur within the former Whittaker-Bermite facility Site, and not alter surrounding communities. It would not adversely impact land uses within the area or act as a physical barrier within the surrounding community. Therefore, the proposed project would not physically divide an established community and no impact would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis: **NO IMPACT.** As discussed above under Baseline Conditions, the project Site's zoning designation is SP4, and current land use at the Site is Vacant/Industrial. Based upon the findings of investigations, some of the Site areas designated for unrestricted land use under the Porta Bella Plan may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- c. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis: **NO IMPACT.** The project Site is currently largely unoccupied, but has previously been disturbed by manufacturing operations. The project Site is not located within a Los Angeles County designated Significant Ecological Area (SEA). Furthermore, there is no adopted Habitat Conservation Plan, or Natural Community Conservation Plan associated with the project Site or their surrounding vicinities. Thus, no conflicts with any Habitat Conservation Plan or Natural Community Conservation Plan would result from implementation of the proposed project. Therefore, no impacts would occur as a result of the proposed remediation project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. City of Santa Clarita General Plan Community Development Land Use Element, 1991.

City of Santa Clarita. City of Santa Clarita General Plan (Draft) Land Use Element, 2008.

City of Santa Clarita. *Porta Bella Specific Plan*, 1995.

11. Mineral Resources

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: Historically, the Santa Clarita Valley has yielded significant amounts of gold, natural gas, and oil. Several oil and natural gas wells are still in production. The City of Santa Clarita planning area contains a significant amount of Mineral Resource Zones (MRZ). A MRZ 2, designated as such due to an area's probability to contain mineral resources, is located north of the project Site, adjacent to the Santa Clara River. Additional mineral deposits in the vicinity of the project Site are located to the southeast, and those are identified as producing, idle, and abandoned oil and gas wells, and estimated oil and gas field areas. The proposed project Site is located within deep soils of OU1, and OU2 through OU6, which is approximately 185 acres of the 996-acre former Whittaker-Bermite facility, or approximately 19 percent of the total area. The Site consists of rugged terrain that has previously been disturbed in the graded areas and undisturbed in the riparian areas of the Site. No known mineral resources have been identified on the project Site or likely to be found as a result of the proposed project.

Analysis as to whether or not project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Impact Analysis: **NO IMPACT.** No mineral resources that would be of value to the region or residents of the State have been identified at the project Site. Therefore, no impacts resulting from the loss of mineral resources would be anticipated to occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Result in the loss of availability of a locally-important mineral resource recovery Site delineated on a local general plan, specific plan or other land use plan.

Impact Analysis: **NO IMPACT.** According to local plans, the project Site is not located in areas designated as containing locally important mineral resources. Thus, no impacts would occur.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. *City of Santa Clarita General Plan (Draft) Conservation and Open Space Element*, 2008.

12. Noise

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The former Whittaker-Bermite facility is currently largely unoccupied; current activities include the remediation efforts primarily located in OU1, but occurring throughout the Site. Noise occurring on the project Site currently originates from haul trucks operating on the project Site roadways and periodic activities associated with groundwater sampling and testing, and SVE systems operation, maintenance, and monitoring. Sensitive residential and public facility uses are located approximately 0.25 mile to the southwest and west/northeast of the project Site. Other sensitive uses located within a 0.5 mile-radius of the former Whittaker-Bermite facility include Creative Years Nursery School and Jereann Bowman High School located near to the Site's northeastern boundary, and Golden Valley High School located near to the Site's southeastern boundary. The project Site's topography is rugged, hilly terrain, with an extensive transportation and utility network throughout the Site.

Analysis as to whether or not project activities would result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Noise would be generated at the project Site as a result of the proposed remedial activities, which are expected to be minimal. Construction noise would be temporary traffic-related noise of vehicles entering and exiting the Site, construction equipment, and workers on-Site. Sensitive residential and public facility uses are located to the southwest and west/northeast of the project Site. However, the distance between those uses and construction areas within the project Site is approximately 0.25 mile, and noise would not be audible at this distance. No activities would occur along the Site's boundary near these sensitive uses. Operational noise would be limited to haul/water trucks and workers on-Site, and would not be audible from the sensitive receptors. The terrain between Creative Years Nursery School, Jereann Bowman High School and the project Site is rugged with varying elevation. There are a series of hills, and high elevated landscape between the construction areas and these sensitive uses. Golden Valley High School is separated from the project Site by Golden Valley Road, and is located behind higher-elevated terrain than the road. The topographic features between the project's construction areas and the sensitive receptors would serve as a natural noise barrier. Therefore, it is unlikely that the proposed remedial activities would expose persons or sensitive receptors to excessive noise levels.

The City of Santa Clarita's noise ordinance for construction work requires a building permit from the City on Sites within three hundred (300) feet of a residentially zoned property except between the hours of seven a.m. to seven p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday. It is not anticipated that noise generated from

on-Site operations would violate the City of Santa Clarita's noise ordinance since the residential and public facility uses are located further than 300 feet from the project Site. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

Impact Analysis: **NO IMPACT.** The proposed project would not include activities that could produce excessive groundborne vibration (i.e., pile-driving). Without such activities occurring at the project Site, persons would not be exposed to groundborne vibration or groundborne noise levels as a result of the proposed project. Therefore, no impacts are expected to occur.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Ambient noise levels would likely be traffic noise from passing vehicles at the project boundaries, Golden Valley Road and Soledad Canyon Road. As stated in Section 12 (a) and (b) above, the proposed project would likely not generate or increase noise levels within the vicinity of the project Site. Project construction noise would be limited to earthmoving equipment and vehicle noise and operations of the proposed project would last approximately 2 to 3 years and noise would be limited to haul/water trucks and workers on-Site. Project implementation is unlikely to increase ambient noise levels to the point of audibility at the nearest sensitive receptors, averaging 0.25 mile from the project Site. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** As stated in Section 12 (c) above, ambient noise levels would likely be traffic noise generated by local vehicles passing along the project boundaries, Golden Valley Road and Soledad Canyon Road. Project-related activities would likely not elevate noise levels in the vicinity of the project Site because of the limited earthmoving, haul/water trucks and vehicles, and workers on the Site. Further, the proposed remedial process for OU2 through OU6 would be identical to that at OU1, and would utilize existing infrastructure. In addition, the proposed project would be temporary, lasting approximately 2 to 3 years. Sensitive noise receptors are not within close proximity to be exposed to noise levels that currently exist at the project Site or that could possibly be generated. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within the two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Impact Analysis: **NO IMPACT.** The public airport closest to the project Site is the Agua Dulce Airpark located approximately 13 miles northeast from the project Site; therefore, implementation of the proposed project would not result in impacts.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Impact Analysis: **NO IMPACT.** There are no private airstrips located within the vicinity of the project area; therefore, no impact is anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

City of Santa Clarita. *City of Santa Clarita General Plan Noise Element Amendment*, 2000.

City of Santa Clarita. *City of Santa Clarita Draft General Plan Noise Element*, 2008.

13. Population and Housing

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The former Whittaker-Bermite facility does not contain any residential structures or structures suitable for human occupancy. The proposed project does not include the construction or use of permanent housing units or structures. As discussed in Section 10 above, the project Site is surrounded by residential development, the closest of which is located south and southwest. The existing residential development adjacent to the Site would not be disturbed during remediation of soil at the Site.

Analysis as to whether or not project activities would:

- a. Induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis: **NO IMPACT.** The proposed remediation activities would not substantially induce population growth in the area directly or indirectly. No project-related businesses or homes would be constructed. The remedial activities at the Site would require approximately 35 to 50 workers at any given time over the course of a 2 to 3 year period. The workers are expected to be drawn from existing area work-force and not require the relocation of workers from beyond the project area. No improvements to the existing transportation network or other infrastructure would occur as part of the proposed project, as the remedial process for OU2 through OU6 would be essentially identical to that of OU1 operations, and would utilize existing infrastructure. Therefore, no impacts are anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis: **NO IMPACT**. The proposed project is located on an existing unoccupied and previously disturbed Site that does not contain residential housing units. As stated above, the existing residential development south and southwest of the project Site would not be altered or displaced as a result of proposed remediation efforts. Therefore, no impacts are anticipated.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis: **NO IMPACT**. There are no residential units within the proposed project Site, or area of impact. The proposed remedial efforts would not require the demolition of any existing residential structures adjacent to the project Site or otherwise. Therefore, no person would be displaced, nor would replacement housing be required as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

City of Santa Clarita. *City of Santa Clarita General Plan (Draft) Housing Element*, 2009.

14. Public Services

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The proposed project Site is under the jurisdiction of the Los Angeles County Sheriff's department and the Los Angeles County's Fire Department. The project Site is unoccupied, but has previously been disturbed. Existing roadways traverse the 996-acre former Whittaker-Bermite facility as well as power and water utilities, but these are not public roads. The main entrances to the project Site on Soledad Canyon Road and Golden Valley Road are gated after hours due to contamination levels, and ongoing remedial efforts. Emergency response personnel would have uninterrupted access to the project Site as necessary.

Analysis as to whether or not project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

❖ Fire protection

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT**. The Los Angeles County Fire Department (LACOFD) provides fire protection to the city of Santa Clarita and would respond to emergencies at the project Site. The nearest facility to the Site is Fire Station No. 126, located at 23757 Valencia Boulevard, approximately 2.3 mile driving distance. Fire Station No. 111 is located at 26829 Seco Canyon Road, or approximately 3.0 mile driving distance. This facility also includes paramedic operations, and would be able to respond with medical assistance in the event of an emergency at the project Site. Both of these facilities would be able to adequately respond to an emergency call from the project Site.

The proposed project would comply with all applicable provisions of the City's Fire and Building Codes. Furthermore, project construction and staging activities would be confined to the project Site and, therefore, would not interfere with LACOFD's access to surrounding properties. Emergency access to the Site would also be maintained during construction via entrances on Soledad Canyon Road and Golden Valley Road. The proposed project would not create

adverse impacts associated with fire protection services. Therefore, implementation of the proposed project would not result in significant impacts to current fire protection service.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

❖ Police protection

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The Los Angeles County Sheriff's Station (SCSS) Santa Clarita division would provide police protection for the project Site. The SCSS would generally be the first responders to all requests for police services. The nearest SCSS police station to the project Site is located at 23740 Magic Mountain Parkway, or 2.3 miles driving distance. Therefore, impacts would be less than significant as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

❖ Schools

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not include any new educational facilities, or induce the need for such facilities indirectly by spurring population or development growth. The nearest public school facilities include Jereann Bowman High School located at 21508 Centre Pointe Pkwy, adjacent to the project Site's northeastern boundary; Golden Valley High School located at 27051 Robert C Lee Pkwy, adjacent to the project Site's southeastern boundary; Valencia Valley Elementary School, located at 23601 Carrizo Drive, approximately 2.7 miles driving distance from the project Site; Rio Vista Elementary School, located at 20417 Cedar Creek Street, or approximately 2.0 miles driving distance; and Emblem Elementary School, located at 22635 Espuella Drive, approximately 2.1 miles driving distance from the project Site.

The proposed project would not alter or affect schools located in the vicinity of the Site. All proposed remedial activities would be contained within the project Site boundary. The majority of project-related traffic would be contained on-Site. A limited amount of traffic would be generated outside of the project Site such as delivery of remedial materials and off-Site soil disposal and/or treatment. The additional traffic generation would be minor and would not likely occur during peak hour traffic. Therefore, less than significant impacts are anticipated to occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

❖ Parks

NO IMPACT. The demand for new parks is generally associated with an increase in housing or population. As described above, the proposed project would not increase population or result in the need for new housing. Therefore, no impacts would occur as a result of project implementation.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

❖ Other public facilities

Impact Analysis: **NO IMPACT.** The project Site is currently served by existing public utilities power/data lines and roadways. Project implementation would not require any new or altered off-Site public utilities or infrastructure services above existing conditions. No impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. *City of Santa Clarita General Plan Public Services, Facilities, and Utilities Element*, 1991.

City of Santa Clarita. *City of Santa Clarita General Plan (Draft) Safety Element*, 2008.

15. Recreation

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: Recreational opportunities do not currently exist at or adjacent to the Site. The project Site is closed to the public and fenced around its perimeter with access at only two locations. The primary access point, off of Commuter Way adjacent to the Santa Clarita Metrolink Station, is guarded and all visitors to the Site are required to check in. The secondary access point along Golden Valley Road, remains locked to prevent entrance into the Site from unauthorized visitors.

Analysis as to whether or not project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis: **NO IMPACT.** Implementation of the proposed project would not introduce any residential uses that would increase the demand for neighborhood or regional parks or other recreational facilities in the area. The proposed project does not provide recreational uses and would not substantially deteriorate current conditions at the Site. Therefore, no impacts are likely to occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis: **NO IMPACT.** The proposed project does not include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, no impacts are anticipated.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

City of Santa Clarita. *City of Santa Clarita General Plan Parks and Recreation Element*, 1991.

City of Santa Clarita. *City of Santa Clarita General Plan (Draft) Open Space and Conservation Element*, 2008.

16. Transportation and Traffic

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: Access to the Site is provided via Commuter Way off of Soledad Canyon Road in OU5, and via an entrance off Golden Valley Road on the Site's eastern boundary in OU1. The Commuter Way entrance serves as the primary access point for the Site, with limited access through a locked gate off Golden Valley Road. Both entrances would be utilized equally during implementation of the proposed remedial activities. Throughout the project Site, a paved roadway traverses through the property providing vehicular access to all six OUs. Remedial activities would last approximately 2 to 3 years and require approximately 35-50 full-time or part-time employees. It is anticipated that approximately 15 on-Site haul trucks, 6 off-Site haul trucks that would only make an estimated total of 112 off-Site disposal trips, and 5 water trucks would be required during remedial activities. Approximately 35-50 worker vehicles would travel to and away from the project Site Monday through Friday during normal work hours, and would utilize both entrances. Construction equipment, and worker parking would be on-Site, and all construction staging activities would be contained within the project Site.

Analysis as to whether or not project activities would:

- a. Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would result in a net traffic increase at the project Site and on the capacity of the street system. Currently, the segment of Soledad Canyon Road from Bouquet Canyon Road to Commuter Way is designated Level of Service (LOS) F, which indicated extremely slow traffic flow. Traffic currently generated from the project Site is insignificant and would not add to the causes of LOS F. The current traffic generated from the Santa Clarita Metrolink Station during peak travel hours (AM and PM) contributes to the LOS F along this segment of Soledad Canyon Road. During construction of the proposed project, it is estimated that up to 35 to 50 vehicle trips per day would be generated. These trips would include construction equipment, including water/haul trucks, and workers arriving at the Site. Operational trips would include workers arrivals and haul/water trucks. Both would have limited number of project related trips and minimal traffic is expected. Remedial activities would primarily be contained within the project Site, including hauling excavated soils to treatment pad or stockpiling areas. These activities would not require transporting via local streets. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would result in an increase in trips generated to and from the project Site. Approximately 35 to 50 worker vehicles would arrive and depart the project Site Monday through Friday. However, it is unlikely that remedial activities would require 35 to 50 workers during the entire construction period. The number of employees needed at the Site is expected to vary depending on the activities at the Site, but should not exceed a total of 50 workers. Additional project-related vehicle trips would be generated by approximately 5 water trucks and 6 off-Site haul trucks. The water trucks would likely arrive and depart the Site throughout the day, and not during peak hour traffic times. Further, it is estimated that 112 trips would be required to haul off and dispose of excavated soils. A maximum of 6 off-Site haul trips would occur during the course of one work day, and less than 20 days total (112/6). The additional number of trips generated from the proposed project would not likely cause a significant increase in area traffic volumes, and would not individually or cumulatively exceed the level of service standard established by the county congestion management agency for designated roads or highways. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

Impact Analysis: **NO IMPACT.** The proposed project would not increase conflicts between vehicle traffic, construction trucks, and pedestrians due to increased traffic volumes associated with the proposed project. Entrance into the project Site is off Soledad Canyon Road, which includes right and left-hand turn lanes. The Site entrance via Golden Valley Road provides for soft shoulder right-turns, and a center left-turn lane. Traffic is generally light on Golden Valley Road and Soledad Canyon Road, and neither road contains sharp curves or dangerous intersections. The minor increase in project-related traffic would not increase hazards on local streets. Therefore, no impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis: **NO IMPACT.** The proposed project would not increase conflicts between automobile traffic, construction trucks, and pedestrians due to increased traffic volumes associated with the proposed project. Entrance into the project Site is off Soledad Canyon Road, which includes right and left-hand turning lanes. Traffic is generally light on Soledad Canyon Road and sharp curves or dangerous intersections are not characteristic of the road. Limited increase in project-related traffic would not increase hazards on local streets. Therefore, no impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- e. Result in inadequate emergency access.

Impact Analysis: **NO IMPACT.** The proposed remediation project would not alter the project Site's current emergency access features, which include the main Site entrance off Soledad Canyon Road and a secondary entrance off Golden Valley Road. Therefore, no impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

- f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Impact Analysis: **NO IMPACT.** The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation because no new traffic design features are proposed and construction- and operation-related vehicles would use existing roadways. Therefore, no impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

City of Santa Clarita. *City of Santa Clarita General Plan Infrastructure and Community Services Element*, 1997.

City of Santa Clarita. *City of Santa Clarita General Plan (Draft) Circulation Element*, 2009.

16. Utilities and Service Systems

Project Activities Likely to Create an Impact:

Description of Baseline Environmental Conditions: The proposed project is unoccupied, but has previously been disturbed. Power utilities exist on the 996-acre Site.

Analysis as to whether or not project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not exceed wastewater treatment requirements of the LA-RWQCB. The project would generate minimal domestic wastewater that would need to be treated. Minimal wastewater would be associated from 35 to 50 workers during construction, including seven workers during operations of the remediation facilities. Temporary port-a-pots would be utilized by Site workers, and emptied for off-Site transport by the managing company. The project would also generate contaminated water during the soil remediation treatment process. However, the bioremediation treatments would include a water treatment system. Discharges would comply with NPDES permits issued from the LA-RWQCB. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not generate sufficient wastewater to require the construction of new water or wastewater treatment facilities or expansion of existing facilities. Potable water for on-Site workers would be provided via temporary watering stations. Given that a maximum of 50 workers would be on-Site during construction of the remediation facilities, limited wastewater would be generated from use of temporary port-a-pots. As stated in Section 17 (a) above, the proposed project would comply with the NPDES permit. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** Stormwater drainage facilities are not located within the project Site and no new stormwater drainages are proposed. The proposed project would increase the amount of paved surfaces with the pads for the remediation facilities since remediation activities associated with OU2 through OU6 would utilize those already constructed for OU1-related activities. However, those surfaces would be designed with a berm on the perimeter to prevent run-off and soil contamination. Therefore, less than significant impacts would occur as a result of the proposed project.

Conclusion:

- Potentially Significant Impact

- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis: **NO IMPACT.** There are no existing potable water utilities at the construction Site for construction workers and 500 gallons of water per day for remediation activities such as dust generation control. Water trucks would get water from nearby hydrants on Soledad Canyon Road and/or Golden Valley Road. Implementation of the proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources and no new or expanded entitlements are needed because the project would not increase current water consumption that currently exists at the project Site. Therefore, no impacts would occur as a result of the proposed project.

- Conclusion:
- Potentially Significant Impact
 - Potentially Significant Unless Mitigated
 - Less Than Significant Impact
 - No Impact

- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis: **NO IMPACT.** The project Site is unoccupied and is not served by a wastewater treatment provider. Implementation of the proposed project would not generate the need for a wastewater treatment facility on the project Site. Thirty five to 50 workers would be on-Site during Site remediation activities, which would not generate large amounts of waste water. As such, the proposed project would not create a demand for a wastewater treatment facility on-Site other than the treatment facility included in the remediation facilities. Therefore, no impacts would occur as a result of the proposed project.

- Conclusion:
- Potentially Significant Impact
 - Potentially Significant Unless Mitigated
 - Less Than Significant Impact
 - No Impact

- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would not generate solid waste. However, if off-Site disposal of contaminated soils and water is necessary, the hazardous materials would be disposed at a licensed Class I or II landfill, as appropriate. Non-hazardous soil would be disposed at a nearby Class III landfill.

Other removed trees and shrubberies will be broken into pieces to facilitate transportation for off-Site disposal at a green waste recycling center. Debris resulting from the removal of trees, shrubs, and grass will be treated as non-hazardous waste and disposed at a local landfill. The nearest green waste recycling center is located approximately 8.5 miles west of the project Site at Chiquita Canyon Landfill, which has a capacity of approximately 5,000 to 6,000 tons/day. The Sunshine Canyon Landfill, which also accepts construction debris and green waste for recycling and composting, is located approximately 11 miles south of the project Site and has a capacity of approximately 6,000 tons/day. Both facilities currently have the capacity to accept debris and waste materials from the project Site. Therefore, less than significant impacts would occur as a result of the proposed project.

- Conclusion:
- Potentially Significant Impact
 - Potentially Significant Unless Mitigated
 - Less Than Significant Impact
 - No Impact

- g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis: **LESS THAN SIGNIFICANT IMPACT.** The proposed project would create minimal solid waste from project employees on-Site. Clean-up activities associated with solid wastes generated at the project Site would come

from the City of Santa Clarita’s waste management. The proposed project would not generate enough solid waste for permits to be required related to the project. Therefore, a less than significant impact would occur as a result of the proposed project.

Other removed trees and shrubberies will be broken into pieces to facilitate transportation for off-Site disposal at a green waste recycling center as described above. Debris resulting from the removal of trees, shrubs, and grass will be treated as non-hazardous waste and disposed at a local landfill and a less than significant impact is anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

City of Santa Clarita. City of Santa Clarita General Plan Public Services, Facilities, and Utilities Element, 1991.

Camp Dresser McKee, Inc. *Site-Wide Feasibility Study Operable Units 2 through 6 Former Whittaker-Bermite Facility*, October 2007.

Chiquita Canyon Landfill, website accesses August 31, 2009 at (<http://www.chiquitacanyon.com/faq.php>).

Sunshine Canyon Landfill, website accessed August 31, 2009 at (<http://www.sunshinecanyonlandfill.com/faqs/index.htm>).

California Integrated Waste Management Board, Solid Waste Information System. Accessed August 31, 2009 at (<http://www.ciwmb.ca.gov/SWIS/>).

Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

- a. The project has does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. The project has does not have impacts that are individually limited but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
- c. The project has does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Determination of Appropriate Environmental Document:

Based on evidence provided in this Initial Study, DTSC makes the following determination:

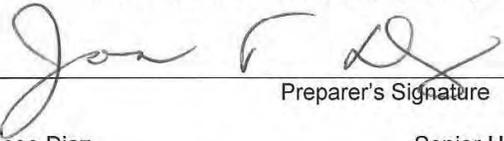
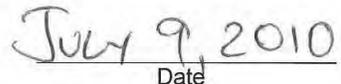
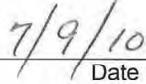
- The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.
- The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.
- The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.
- The proposed project MAY HAVE a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable

legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

Certification:

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

		
Preparer's Signature		Date
Jose Diaz	Senior Hazardous Substances Scientist	818-717-6561
Preparer's Name	Preparer's Title	Phone #
		
Branch or Unit Chief Signature		Date
STEVE LAVINGER	Cleanup Program – Brownfields and Environmental Restoration	818-717-6538
Unit Chief Name	Unit Chief Title	Phone #

ATTACHEMENT A

REFERENCES

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15. City of Santa Clarita. *City of Santa Clarita General Plan Environmental Impact Report*, 1991.
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APPENDIX
A

The HHDT-DSL, Exh vehicle/emission category includes only the exhaust portion of PM10 & PM2.5 emission from heavy-heavy-duty diesel trucks.

Scenario Year: 2009 All model years in the range 1965 to 1965		Scenario Year: 2010 All model years in the range 1966 to 2010		
HHDT-DSL		HHDT-DSL		
CO	0.012822	CO	0.011855	lbs/mi
NOx	0.041846	NOx	0.038221	0.038221
VOC	0.003293	VOC	0.003042	75 miles
SOx	0.000040	SOx	0.000041	3
PM10	0.001836	PM10	0.001831	40
PM2.5	0.001752	PM2.5	0.001601	13.95
CO2	4.210808	CO2	4.211206	
HHDT-DSL Exh		HHDT-DSL Exh		
PM10	0.001854	PM10	0.001889	
PM2.5	0.001707	PM2.5	0.001554	

Whittaker-Bermite Remediation
 22116 West Soledad Canyon Rd, Santa Clarita, CA
 Operable units 2 - 6

3 yrs
 Start in 2011

	<i>Estimated Volume of Impacted Soil (yd3)</i>	<i>Estimated Volume of Clean Soil Removal (yd3)</i>	<i>Total Estimated Volume of Soils to Be Excavated (yd3)</i>	<i>Estimated Mass of COPCs (lbs)</i>	
Operable Unit					
OU2 Totals for Perchlorate-Impacted Soils:	222,306	21,565	243,870	3,934	
OU3 Totals for Perchlorate-Impacted Soils:	104,426	4,990	109,416	2,442	
OU4 Totals for Perchlorate-Impacted Soils:	3,808	0	3,808	1.3	
OU5 Totals for Perchlorate-Impacted Soils:	144,568	77,310	221,878	111	
OU2 - OU6 Totals for Perchlorate-Impacted Soils:	475,107	103,865	578,972	6,488	
OU2 Totals for VOC-Impacted Soils:	3,902,006	n/a	n/a	2,787	in-situ
OU3 Totals for VOC-Impacted Soils:	2,179,075	n/a	n/a	10,277	in-situ
OU4 Totals for VOC-Impacted Soils:	82,561	n/a	n/a	2	in-situ
OU5 Totals for VOC-Impacted Soils:	1,163,953	n/a	n/a	389	in-situ
OU2 - OU6 Totals for VOC-Impacted Soils:	7,327,586	n/a	n/a	13,454	
OU2 Totals for Other COPCs (metals, PAHs, TPH):	163	81	244	7,240	
OU4 Totals for Other COPCs (metals, PAHs, TPH):	58	23	81	121	
OU5 Totals for Other COPCs (metals, PAHs, TPH):	817			5,513	
OU2 - OU6 Totals for Other COPCs (metals, PAHs, TPH):	1,038		325	12,874	
			Excavation-->	578,972	
			Offsite Hauling-->	1,678	
			Total -->	580,650	

Max depth 10 ft
 Excavation area (sq ft) 57,897
 Surface area (acres) - excavation 1.33
 Disturbed area (sq ft) 790,771
 Surface area (acres) - disturbed 18.15
 43,660 SF/acre

Whittaker AQ Emissions

lbs/day

	CO	VOC	Nox	Sox	PM10	PM2.5	CO2
Construction							
Construction Emissions (Controlled)	29	7	62	-	38	10	6,738
Haul Trucks	11	3	34	0.04	2	2	3,790
Workers	17	2	2	0.02	2	0	2,301
<i>Total with Rule 403</i>	57	12	98	<1	42	12	12,829
Thresholds	550	75	100	150	150	55	NA

	Annual CO2 (short tons)	Annual CO2 (metric tons)
2011	1,988	1,803
2012	1,991	1,806
2013	1,546	1,403
Total Construction	5,525	5,012

URBEMIS - Annual CO2 (short tons)

2011	875.92
2012	879.29
2013	434.59

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Urbemis 2007 Version 9.2.4
 Combined Summer Emissions Reports (Pounds/Day)
 File Name: C:\Documents and Settings\TRAVIS\KR\Desktop\Whittaker\Whittaker.urb924
 Project Name: Whittaker
 Project Location: Los Angeles County
 On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
 Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO	ROG	NOx	SO2	PM10	PM2.5	CO2	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust
2011 TOTALS (lbs/day unmitigated)	37.16	8.63	75.14	0.02	93.45	22.21	9,035.00	89.68	3.77	18.74	3.47
2011 TOTALS (lbs/day mitigated)	37.16	8.63	75.14	0.02	38.79	10.79	9,035.00	35.03	3.77	7.33	3.47
2012 TOTALS (lbs/day unmitigated)	35.98	8.11	69.00	0.02	93.08	21.87	9,034.93	89.68	3.40	18.74	3.13
2012 TOTALS (lbs/day mitigated)	35.98	8.11	69.00	0.02	38.43	10.45	9,034.93	35.03	3.40	7.33	3.13
2013 TOTALS (lbs/day unmitigated)	34.96	7.55	63.31	0.02	92.75	21.56	9,034.88	89.68	3.07	18.74	2.82
2013 TOTALS (lbs/day mitigated)	34.96	7.55	63.31	0.02	38.09	10.15	9,034.88	35.03	3.07	7.33	2.82

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	CO	ROG	NOx	SO2	PM10	PM2.5	CO2	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust
Time Slice 1/3/2011-12/30/2011 Active Days: 260	<u>37.16</u>	<u>8.63</u>	<u>75.14</u>	<u>0.02</u>	<u>38.79</u>	<u>10.79</u>	<u>9,035.00</u>	<u>35.03</u>	<u>3.77</u>	<u>7.33</u>	<u>3.47</u>
Mass Grading 01/03/2011-06/29/2013	37.16	8.63	75.14	0.02	38.79	10.79	9,035.00	35.03	3.77	7.33	3.47
Mass Grading Dust	0.00	0.00	0.00	0.00	34.94	7.30	0.00	34.94	0.00	7.30	0.00
Mass Grading Off Road Diesel	28.70	7.47	62.14	0.00	3.22	2.97	6,737.88	0.00	3.22	0.00	2.97
Mass Grading On Road Diesel	5.17	1.05	12.81	0.02	0.60	0.51	1,893.10	0.06	0.53	0.02	0.49
Mass Grading Worker Trips	3.30	0.10	0.19	0.00	0.03	0.02	404.03	0.02	0.01	0.01	0.01
Time Slice 1/2/2012-12/31/2012 Active Days: 261	<u>35.98</u>	<u>8.11</u>	<u>69.00</u>	<u>0.02</u>	<u>38.43</u>	<u>10.45</u>	<u>9,034.93</u>	<u>35.03</u>	<u>3.40</u>	<u>7.33</u>	<u>3.13</u>
Mass Grading 01/03/2011-06/29/2013	35.98	8.11	69.00	0.02	38.43	10.45	9,034.93	35.03	3.40	7.33	3.13
Mass Grading Dust	0.00	0.00	0.00	0.00	34.94	7.30	0.00	34.94	0.00	7.30	0.00
Mass Grading Off Road Diesel	28.27	7.05	57.37	0.00	2.92	2.69	6,737.88	0.00	2.92	0.00	2.69
Mass Grading On Road Diesel	4.63	0.96	11.45	0.02	0.53	0.45	1,893.10	0.06	0.47	0.02	0.43
Mass Grading Worker Trips	3.07	0.09	0.18	0.00	0.03	0.02	403.96	0.02	0.01	0.01	0.01

Time Slice 1/1/2013-6/28/2013 Active Days: 129	<u>34.96</u>	<u>7.55</u>	<u>63.31</u>	<u>0.02</u>	<u>38.09</u>	<u>10.15</u>	<u>9,034.88</u>	<u>35.03</u>	<u>3.07</u>	<u>7.33</u>	<u>2.82</u>
Mass Grading 01/03/2011-06/29/2013	34.96	7.55	63.31	0.02	38.09	10.15	9,034.88	35.03	3.07	7.33	2.82
Mass Grading Dust	0.00	0.00	0.00	0.00	34.94	7.30	0.00	34.94	0.00	7.30	0.00
Mass Grading Off Road Diesel	27.99	6.59	53.01	0.00	2.65	2.44	6,737.88	0.00	2.65	0.00	2.44
Mass Grading On Road Diesel	4.11	0.87	10.13	0.02	0.47	0.39	1,893.10	0.06	0.41	0.02	0.37
Mass Grading Worker Trips	2.86	0.09	0.16	0.00	0.03	0.02	403.91	0.02	0.01	0.01	0.01

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/3/2011 - 6/29/2013 - Default Mass Site Grading/Excavation Description

For Soil Stabilizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

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Urbemis 2007 Version 8.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\TRAVIS\KR\Desktop\Whittaker\Whittaker.urb924

Project Name: Whittaker

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	1.12	9.77	4.83	0.00	11.66	0.49	12.15	2.44	0.45	2.89	1,174.55
2011 TOTALS (tons/year mitigated)	1.12	9.77	4.83	0.00	4.55	0.49	5.04	0.95	0.45	1.40	1,174.55
Percent Reduction	0.00	0.00	0.00	0.00	60.94	0.00	58.49	60.91	0.00	51.40	0.00
2012 TOTALS (tons/year unmitigated)	1.06	9.00	4.69	0.00	11.70	0.44	12.15	2.45	0.41	2.85	1,179.06
2012 TOTALS (tons/year mitigated)	1.06	9.00	4.69	0.00	4.57	0.44	5.01	0.96	0.41	1.36	1,179.06
Percent Reduction	0.00	0.00	0.00	0.00	60.94	0.00	58.72	60.91	0.00	52.19	0.00
2013 TOTALS (tons/year unmitigated)	0.49	4.08	2.25	0.00	5.78	0.20	5.98	1.21	0.18	1.39	582.75
2013 TOTALS (tons/year mitigated)	0.49	4.08	2.25	0.00	2.26	0.20	2.46	0.47	0.18	0.65	582.75
Percent Reduction	0.00	0.00	0.00	0.00	60.94	0.00	58.83	60.91	0.00	52.94	0.00

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	1.12	9.77	4.83	0.00	4.55	0.49	5.04	0.95	0.45	1.40	1,174.55
Mass Grading 01/03/2011-08/28/2013	1.12	9.77	4.83	0.00	4.55	0.49	5.04	0.95	0.45	1.40	1,174.55
Mass Grading Dust	0.00	0.00	0.00	0.00	4.54	0.00	4.54	0.95	0.00	0.95	0.00
Mass Grading Off Road Diesel	0.97	8.08	3.73	0.00	0.00	0.42	0.42	0.00	0.39	0.39	875.92
Mass Grading On Road Diesel	0.14	1.66	0.67	0.00	0.01	0.07	0.08	0.00	0.08	0.07	246.10
Mass Grading Worker Trips	0.01	0.03	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.52
2012	1.06	9.00	4.69	0.00	4.57	0.44	5.01	0.96	0.41	1.36	1,179.06
Mass Grading 01/03/2011-08/28/2013	1.06	9.00	4.69	0.00	4.57	0.44	5.01	0.96	0.41	1.36	1,179.06
Mass Grading Dust	0.00	0.00	0.00	0.00	4.56	0.00	4.56	0.95	0.00	0.95	0.00

Mass Grading Off Road Diesel	0.92	7.49	3.69	0.00	0.00	0.38	0.38	0.00	0.35	0.35	879.29
Mass Grading On Road Diesel	0.13	1.49	0.60	0.00	0.01	0.06	0.07	0.00	0.06	0.06	247.05
Mass Grading Worker Trips	0.01	0.02	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.72
2013	0.49	4.08	2.25	0.00	2.26	0.20	2.46	0.47	0.18	0.65	582.75
Mass Grading 01/03/2011-09/29/2013	0.49	4.08	2.25	0.00	2.26	0.20	2.46	0.47	0.18	0.65	582.75
Mass Grading Dust	0.00	0.00	0.00	0.00	2.25	0.00	2.25	0.47	0.00	0.47	0.00
Mass Grading Off Road Diesel	0.42	3.42	1.81	0.00	0.00	0.17	0.17	0.00	0.16	0.16	434.69
Mass Grading On Road Diesel	0.06	0.65	0.28	0.00	0.00	0.03	0.03	0.00	0.02	0.03	122.10
Mass Grading Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.05

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/9/2011 - 6/29/2013 - Default Mass Site Grading/Excavation Description
 For Soil Stabilizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:
 PM10: 61% PM25: 61%
 For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:
 PM10: 61% PM25: 61%

Whittaker
Worker Emissions

2010 EMFAC Emission Factors (lb/mi)

Category	CO	VOC	NOx	SOx	PM10	PM2.5	CO2
Passenger Vehicle, Gas (<8500 lb)	0.006283	0.000914	0.000918	0.000011	0.000903	0.000193	1.065682
Delivery Vehicle, Gas (>8500 lb)	0.018438	0.002590	0.020622	0.000027	0.001507	0.000780	2.732222
HHDD Vehicle, Diesel (33,001 to 60,000 lb)	0.011653	0.003042	0.038221	0.000041	0.002846	0.001738	4.211208

Source: <http://www.scaqmd.gov/ceqa/handbook/onroad/onroad.htm>

Peak Day Construction Worker and Delivery Trucks (lbs/day)*

Category	CO	VOC	NOx	SOx	PM10	PM2.5	CO2
Workers - Construction	17.36	1.92	1.93	0.02	1.90	0.40	2,300.93
Haul Trucks - Onsite	0.72	0.18	2.29	0.00	0.16	0.10	252.67
Haul Trucks - Offsite	10.04	2.55	32.11	0.03	2.22	1.46	3,537.41
Total On-Road Off-site Emissions (lbs/day)	28.11	4.66	36.33	0.06	4.28	1.97	6,091.02

	Trips	Round Trip Miles
Construction Workers	33	60
Haul Trucks-Onsite	15	4
Haul Trucks-Offsite	6	140

Notes:

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Derived from Peak Emissions Inventory (Winter, Annual, Summer)
Emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories: Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

This methodology replaces the old EMFAC emission factors in Tables A-9-5-I-1 through A-9-5-L-I Appendix A-9 of the current SCAQMD OEDA Handbook. All the emission factors account for the emissions from start, running and idling exhaust. In addition, the VOC emission factors include diurnal, hot soak, running and resting emissions, and the PM10 & PM2.5 emission factors include tire and brake wear.

Emission Factors for On-Road Heavy-Duty Diesel Trucks

Projects in the SCAQMD

Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class: Heavy-Duty Diesel Trucks (33,001 to 60,000 pounds)

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model and extracting the Heavy-Duty Diesel Truck (HHDT) Emission Factors

These emission factors can be used to calculate on-road mobile source emissions for the vehicle/emission categories listed in the tables below, by use of the following equation

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

The HHDT-Diesel vehicle/emission category accounts for all emissions from heavy-duty diesel trucks including start, running and idling exhaust. In addition, VOC emission factors account for diurnal, hot soak, running and resting emissions, and the PM10 & PM2.5 emission factors account for tire and brake wear.

The construction air quality analysis was conducted for the proposed project to determine construction-related emissions using the Transportation and Land Use Programs Computer Model URBEMIS2007 and SCAQMD on-road emission factors for worker trips. The analysis estimates construction emissions from site grading and excavation, and exhaust from construction equipment: 2 excavators, 3 loaders, 5 water trucks, 1 grader, 1 rock crusher, 1 screener, 15 haul trucks (on-site hauling), 6 trucks (off-site hauling), and 35 worker vehicles.

NEGATIVE DECLARATION

Department of Toxic Substances Control
Brownfields And Environmental Restoration Program
Southern California - Chatsworth Office
9211 Oakdale Avenue
Chatsworth, CA 91342]

Subject: DRAFT FINAL MITIGATED

Project Title: Draft Remedial Action Plan for Operable Units 2 Through 6, Former Whittaker-Bermite Facility

State Clearinghouse No.:

Project Location: 22116 Soledad Canyon Road, in the City of Santa Clarita

County: Los Angeles County

Project Description: The proposed project consists of the remediation of contaminated soil through implementation of the Remedial Action Plan (RAP) for Operable Units (OU) 2 through 6 and the deep soils of OU1 at the former Whittaker-Bermite facility, in the City of Santa Clarita, California (the Site). For effective management of site characterization and remediation, the Site has been divided into seven operable units (OUs) with OU1 through OU6 designated for soils and OU7 for groundwater beneath the Site. Characterization of all OUs has been completed and remediation of the shallow soils in OU1 was completed in 2009 in accordance with the approved plans, with the exception of soil vapor extraction (SVE) operations in certain areas of OU1 that are still ongoing, but are expected to be completed in the near future. The area addressed in the RAP encompasses OU2 through OU6. It also considers the deep soils for OU1 not previously addressed in the OU1 RAP and Remedial Design (RD) documents.

The proposed remedial action identified in the Site-Wide RAP for soils at OU1 through OU6 (the proposed project) is comprised of a combination of approaches and technologies to remediate OU1 through OU6 soils that contain perchlorate, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, where present at levels exceeding risk-based cleanup goals, and rationale used in developing the remedial strategies. The proposed remedial actions include in-situ soil vapor extraction (SVE), shallow remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, ex-situ biological treatment of perchlorate-impacted soils, and in-situ biological treatment of perchlorate-impacted soils¹. Excavated soils would be treated through combinations of off-site disposal at an appropriate permitted facility, ex-situ SVE, ex-situ anaerobic bioremediation, and potentially chemical oxidation.

The development of the proposed remedial alternative (also referred to as the proposed project) and approach followed the completion of a series of remedial investigations, health risk analyses, literature reviews, treatability studies, field pilot tests of ex-situ soil treatment, feasibility studies, and interim cleanup and other measures protective of human health and the environment that Whittaker has conducted starting in 1995 and continuing to date under work plans submitted to and approved by DTSC. The primary chemicals of potential concern (COPCs) detected during the Site-Wide Remedial Investigation (RI), include perchlorate and VOCs (primarily chlorinated hydrocarbon compounds). There are also limited areas/volumes of soils impacted by other COPCs, including SVOCs (such as polycyclic aromatic hydrocarbons [PAH]), and selected metals.

The City of Santa Clarita has approved a large scale, mixed use development plan for the property known as the "Porta Bella Plan." These entitlements are now held by Remediation Financial Inc./Santa Clarita LLC (SCLLC). Under the bankruptcy court's oversight, the property is currently being marketed for development as a multi-use community. Since the drafting of the Porta Bella Plan in 1995, a significant amount of environmental investigative work has been conducted across the Site. Based upon the findings of those investigations some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use

¹ pending successful field pilot testing

DTSC 1327 (1/06/06)

Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures. Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.

The incorporation of the Porta Bella Plan grading envelope into this RAP, which the City of Santa Clarita has stated would remain essentially unchanged even under alternative redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades.

The proposed remedial approach for the contaminated areas was developed based on the aforementioned goals and objectives, the magnitude and extent of chemical impacts, and potential human health risks. Table 1 lists those areas identified in the Site-Wide RAP where remedial action is proposed.

OU	Area	Chemicals of Potential Concern (COPC)	Area of Concern (approximate acreage & soil volume)
OU2	1A-North, 1A-South, 4, 4/37, 6, 19, 22, 25, 27, 28, 34, 36, 37, 39, 53/54/72, 56, 56/58, 58, 63, and 74	VOCs/ Perchlorate/other COPCs	VOCs – 25.2 acres (3,181,981 yd ³), Perchlorate – 13.5 acres (556,747 yd ³) Other COPCs – 0.01 acres (163 yd ³)
OU3	14, 17, and 30	VOCs/ Perchlorate/other COPCs	VOCs – 10.3 acres (1,361,506 yd ³) Perchlorate – 4.6 acres (59,044 yd ³) Other COPCs – 0.06 acres (640 yd ³)
OU4	Hula Bowl Canyons I, II, IV, and Area 16A (stockpiled soils removed from Hula Bowl Canyon IV)	VOCs/ Perchlorate/other COPCs	VOCs – 2.6 acres (479,727 yd ³) Perchlorate – 0.9 acres (9,824 yd ³) Other COPCs – 0.01 acres (58 yd ³)
OU5	2, 12, 13, 18, 21, 31/45, 33, 41, 46, 48/49, 50, 51, 61, 67, 68, and 69	VOCs/ Perchlorate/Other COPCs	VOCs – 14.9 acres (1,621,593 yd ³) Perchlorate – 4.6 acres (135,400 yd ³) Other COPCs – 0.08 acres (817 yd ³)
OU6	1 (RCRA Unit)	VOCs	2 acres (289,687 yd ³)

REMEDIAL ELEMENTS:

The proposed project is comprised of a combination of in-situ SVE, remedial excavation, off-site disposal of soil that is not amenable to ex-situ treatment, ex-situ SVE treatment of excavated soils that contain elevated VOC concentrations, and ex-situ biological treatment of perchlorate-impacted soils. Following in-situ SVE, the perchlorate-impacted soils would be excavated and treated on-site through anaerobic bioremediation to allow for reuse rather than off-site disposal. If the VOC concentrations of the excavated soils exceed South Coast Air Quality Management District (SCAQMD) thresholds, then an ex-situ SVE pre-treatment step would be implemented on stockpiled soils to bring VOC emissions down prior to bioremediation processing. Preliminary testing has also demonstrated that bioremediation in combination with chemical oxidation can be used to treat soil containing both perchlorate and VOCs. Ex-situ chemical oxidation, using the same process equipment as the ex-situ bioremediation, may potentially be used as a final VOC polishing step if residual VOC concentrations exceeding risk-based target concentrations (RBTCs) and/or soil screening levels (SSLs) are present in the soil after the bioremediation step. In-situ bioremediation of perchlorate-impacted soil would be potentially applied for the impacted soils remaining after excavation.

OU7 is currently under investigation, and the final remedy for that site has not yet been determined. The on-site groundwater containment will be conducted as part of the OU7 remedy and comprehensive site remediation strategy. Consequently, a separate CEQA document analyzing the remedy for OU7 will be prepared when the final remedy is identified.

Finding Of Significant Effect On Environment: (An Initial Study supporting this finding is attached.)

There will be no significant effects from the project based on the findings in the attached Initial Study.

Mitigation Measures:

Potentially significant effects that can be reduced to less than significant levels after mitigation were identified for the project. Mitigation measures for Biological Resources and Cultural Resources and have been agreed to by the project proponent. The mitigations included for the project are listed below.

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Biological Resources:

Mitigation Measures BIO-1 through BIO-5 shall be implemented to ensure that the project is consistent with regulations protecting biological resources. Mitigation Measure BIO-6, Mitigation Monitoring Plan (MMP) shall be developed to ensure effective implementation and enforcement of Mitigation Measures BIO-1 through BIO-5, if applicable, during the implementation of the proposed remedial activities. The following Mitigation Measures would lessen the potentially significant impacts resulting from the proposed remedial activities.

Mitigation Measure BIO-1: Focused surveys for the California gnatcatcher shall be conducted in the spring and early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable sage scrub habitats that may be impacted by the proposed remedial activities, within the project Site. A qualified biologist shall monitor all construction activities within a 300-foot buffer of suitable habitat. If construction activities are proposed within 300 feet of suitable habitat for the least Bell's vireo, as determined during the focused survey, a biologist shall monitor that area during breeding season (March 15 to September 15). Survey areas should include an appropriate buffer zone of 300 feet from disturbed areas. If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-2: Focused surveys for the least Bell's vireo shall be conducted in the spring or early summer, prior to the start of construction activities. The survey shall be conducted by a qualified biologist, and throughout all suitable habitats that may be impacted by the proposed remedial activities, within the project Site. If construction activities are proposed within 300 feet of suitable southern cottonwood-willow riparian habitat for the least Bell's vireo, as determined during the focused survey, a biologist shall monitor that area during breeding season (March 15 to September 15). If the species or nest is confirmed, the U.S. Fish and Wildlife Service shall be notified immediately. In coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Game, an appropriate disturbance-free buffer shall be established, by installing fencing or flagging. No project activities may occur in these areas unless authorized by the U.S. Fish and Wildlife Service.

Mitigation Measure BIO-3: Focused surveys shall be conducted for special status amphibian species (including the arroyo toad and western spadefoot toad) in areas known to support this species. The focused survey shall be initiated in March, prior to the start of construction activities, by a qualified biologist. If special status amphibian species are confirmed through consultation with the California Department of Fish and Game, a disturbance-free buffer shall be designated. A qualified biologist with demonstrated expertise with amphibian species shall monitor all construction activities in areas occupied by said species.

Mitigation Measure BIO-4: Focused surveys for special status plant species should be conducted across the entire Site during the appropriate blooming periods for those species with potential to occur (i.e., suitable habitat identified on-Site). The focused plant surveys shall be conducted during the floristic period appropriate for each rare plant species identified during previous surveys, which include: Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), and San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), and short-joint beavertail (*Opuntia basi/aris* var. *brachyclada*). If rare plants are located during the focused surveys, then modification of the placement of equipment, laydown areas, and other ground-disturbing activities shall be implemented in order to avoid the plants, if feasible. Populations of rare plants shall be flagged and mapped prior to construction.

Mitigation Measure BIO-5: The project Site has the potential to support birds subject to the Migratory Bird Treaty Act, which prohibits activities that result in the direct take (defined as killing or possession) of a migratory species. Pre-construction surveys shall be conducted for nesting bird and raptor species by a qualified biologist if construction activities, including vegetation clearing, would occur during the breeding season from February 1 to August 31 (generally February 15 through August 15 for most birds and February 1 through August 31 for raptors). If construction activities would occur between February 1 and August 31, the focused survey must be conducted a maximum of three days prior to construction activities. If breeding birds or raptors with active nests are confirmed, a biological monitor shall establish a 300- to 500-foot buffer around the nesting Site, and no construction activities shall occur within the buffer zone until the young have fledged from the nest or the nest fails. The buffer-zone delineation may vary depending on the species and the type of construction activity. Any active nests observed during the survey shall be mapped on an aerial photograph. The biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure no inadvertent impacts on these nests occurs.

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Mitigation Measure BIO-6: Should there be any species or habitat identified during Mitigation Measures BIO-1 through BIO-5, a Mitigation Monitoring Plan shall be developed and implemented to reduce impacts to a less than significant level. The Mitigation Monitoring Plan shall include the following elements and be approved by the appropriate responsible and/or trustee agency associated with the biological resource, as applicable:

- Authority and Purpose of the Program
- Program Adoption Process
- Organization of the MMCRP
- Monitoring Responsibility
- Enforcement Responsibility
- Mitigation Compliance Responsibility
- Dispute Resolution
- Environmental Monitor
- Construction Personnel
- General Reporting Requirements
- Public Access to Records

Mitigation Measure BIO-7: A pre-construction survey for oak trees, including saplings, shall be conducted by a qualified biologist in areas that would likely be impacted by excavation or remediation activities. If saplings are confirmed to be within a planned disturbance area, efforts shall be taken to ensure they are avoided or relocated in accordance with the City of Santa Clarita's Oak Tree Ordinance (Chapter 17.17 § 090)/Ordinance No. 89-10). Construction activities shall not occur within 5 feet of the drip line of an oak tree, if feasible. If construction activities must occur within 5 feet of the drip line of an oak tree, a permit shall be obtained in compliance with the City's Oak Tree Ordinance.

Cultural Resources:

Mitigation Measure CULT-1: Should the proposed remediation require the demolition or alteration of a building or structure, a historic evaluation shall be conducted to determine whether the building or structure is 50-years or older, or historically or archaeologically significant, or which is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California. The survey shall be conducted by a qualified architectural historian.

Mitigation Measure CULT-2: In the event that archaeological resources are encountered during the course of construction activities, all work in the immediate vicinity shall be suspended until the archaeologist and/or Native American monitor assess the discovery and appropriate treatment is determined. Any culturally significant materials, field notes, reports, or photographs shall be deposited in a museum, archeological repository, or with the appropriate Native American tribe.

In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 50973.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project Site that are not reasonably suspected to overlie adjacent remains or archaeological resources.

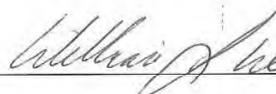
Mitigation Measure CULT-3: In the event that paleontological resources are encountered during construction activities, all work shall cease within the vicinity of the find until the paleontological resources are properly assessed and a qualified paleontologist determines subsequent recommendations.

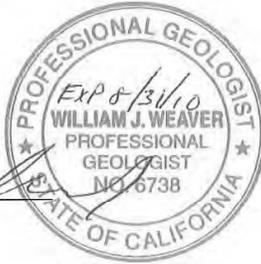
Chief Signature	Date	
Chief Name	Branch Chief Title	Phone #

DTSC 1327 (1/06/06)

This document titled, *Draft Remedial Action Plan, Operable Units 2 through 6, Former Whittaker-Bermite Facility, Santa Clarita, California*, dated July 12, 2010, and has received appropriate technical review and approval. This document was prepared under the supervision of a California Professional Geologist.

Reviewed and Approved by:


William J. Weaver, P.G.
Principal





Steven L. Brewer
Sr. Vice President

CDM

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Appendix A

Summary of Nearest Primary Public Facilities



TABLE A-1
Nearest Primary Public Facilities

Facility Type	Facility Name	Address	City	State	Zip	Distance From Site (miles)
P	Creative Years Nursery School	21710 Golden Triangle Road	Santa Clarita	CA	91350	0.22
P	Noire Dame Infant Center & Preschool	21704 Golden Triangle Road	Santa Clarita	CA	91350	0.26
S	North Valley Christian School	21617 Cleardale Street	Newhall	CA	91321	0.43
P	Tutor Time Child Care/Learning Centers	25804 Hemingway Avenue	Valencia	CA	91381	0.52
S	Golden Valley High School	27051 Robert C. Lee Parkway	Santa Clarita	CA	91321	0.57
S	Valencia Valley Elementary School	23601 Carrizo Drive	Valencia	CA	91355	0.63
S	Town and Country Farm School	22040 Placeritos Blvd	Newhall	CA	91321	0.72
A	Santa Clarita Adult Day Health Care	22903 Soledad Canyon Road	Santa Clarita	CA	91350	0.72
S	The Master's College	21726 Placerita Canyon Road	Canyon Country	CA	91321	0.77
A	Sunrise at Sterling Canyon	25815 McBean Parkway	Valencia	CA	91355	0.88
P	Latin American Civic Association Headstar	24823 Walnut Street	Santa Clarita	CA	91321	0.96
A	Valencia Manor Home	23946 Columbia Court	Valencia	CA	91355	0.97
S	Emblem Elementary School	22635 Espuella Drive	Saugus	CA	91350	0.98
A	Home Sweet Home Residential	23788 Via Jacara	Valencia	CA	91355	1.04
S	Newhall Elementary School	24607 Walnut Street	Newhall	CA	91321	1.05
H	Henry Mayo Newhall Memorial	23845 McBean Parkway	Valencia	CA	91355	1.13
P	Tutor Time Child Care/Learning Centers	23041 Newhall Ranch Road	Valencia	CA	91354	1.19
S	Placerita Junior High School	25015 Newhall Avenue	Newhall	CA	91321	1.30
S	Rio Vista Elementary School	20417 Cedar creek Street	Canyon Country	CA	91351	1.32
S	La Mesa Junior High	26623 May Way	Santa Clarita	CA	91351	1.38
P	Kidcare America	27053 Honby Avenue	Canyon Country	CA	91351	1.40
S	Our Lady of Perpetual Help Elm	23225 Lyons Avenue	Newhall	CA	91321	1.46
A	Canterbury Village	23420 Avenida Rotella	Valencia	CA	91355	1.50
S	Valley View	19420 Sierra Estates Drive	Newhall	CA	91321	1.63
S	Highlands Elementary School	27332 Castala Avenue	Saugus	CA	91350	1.66
P	Simmons Schools	24729 Valley Street	Newhall	CA	91321	1.69
S	Pinecrest Elemetary	25443 Orchard Village Road	Valencia	CA	91355	1.71
P	Great Beginnings Child Care Center	23515 San Fernando Road	Newhall	CA	91321	1.73
S	Valley View Elementary	19414 Sierra Estates Drive	Newhall	CA	91321	1.73
S	Bridgeport Elementary School	23670 Newhall Ranch	Valencia	CA	91355	1.73
P	Little Light Preschool	24551 Valley Street	Santa Clarita	CA	91321	1.75
S	Sierra Vista Junior High School	19425 Stillmore Street	Canyon Country	CA	91351	1.79
P	Sunshine Child Care & Learning Centers	23720 Willey Canyon Road	Valencia	CA	91355	1.80

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TABLE A-1
Nearest Primary Public Facilities

Facility Type	Facility Name	Address	City	State	Zip	Distance From Site (miles)
S	Old Orchard Elementary School	25141 Avenida Rondel	Valencia	CA	91355	1.83
S	William S Hart High School	24825 Newhall Avenue	Newhall	CA	91321	1.83
S	Arroyo Seco Junior High School	27171 Vista Delgado Drive	Valencia	CA	91354	1.88
S	Saugus High School	21900 Centurion Way	Saugus	CA	91350	1.89
S	College of the Canyons	26455 Rockwell Canyon Road	Valencia	CA	91355	1.91
S	Santa Clarita Elementary School	27177 Seco Canyon Road	Saugus	CA	91350	1.94
S	Peachland Avenue Elementary School	24800 Peachland Avenue	Newhall	CA	91321	1.94
S	Meadows Elementary School	25577 Fedala Road	Valencia	CA	91355	1.98
A	Canyon Country Care	19554 Cedar creek Street	Canyon Country	CA	91351	1.99
S	California Institute of the Arts	24700 McBean Parkway	Valencia	CA	91355	2.00
S	Cedar creek Elementary School	27792 Camp Plenty Road	Canyon Country	CA	91351	2.02
S	Canyon Springs Elementary	19059 Vicci Street	Canyon Country	CA	91351	2.09
S	Joseph Scott High School	28700 Bouquet Canyon Road	Canyon Country	CA	91390	2.10
S	Skyblue Mesa Elementary School	28040 Hardesty Drive	Canyon Country	CA	91351	2.13
P	Sandcastles Child Care Centers	19059 Vicci Street	Canyon Country	CA	91351	2.15
P	Bethlehem Lutheran Kindergarten & Preschool	27303 Luther Drive	Canyon Country	CA	91351	2.16
S	Santa Clarita Christian School	27249 Luther Drive	Canyon Country	CA	91351	2.25
S	Canyon High School	19300 Nadal Street	Canyon Country	CA	91351	2.26
P	Rainbow Promise Preschool & Day Care Cent	27421 Homyr Place	Canyon Country	CA	91351	2.27
S	Helmers Elementary	27300 Grandview	Valencia	CA	91354	2.28
S	Cornerstone Christian School	27945 Oakgale	Canyon Country	CA	91351	2.32
S	Santa Clarita Private School	27757 Bouquet Canyon Road	Santa Clarita	CA	91350	2.32
P	Legacy Private Academy	27680 Dickason Drive	Valencia	CA	91355	2.40
P	King's Family Daycare	27556 Elder View Drive	Valencia	CA	91354	2.42
S	James Foster Elementary School	22500 Pamplico Drive	Saugus	CA	91350	2.43
S	La Petite Academy	24925 Anza Drive	Valencia	CA	91355	2.43
A	Capri Retirement Villa	24305 Lyons Avenue	Newhall	CA	91321	2.43
S	Crystal Creek	24342 Vista Hills Drive	Valencia	CA	91355	2.48
S	Wiley Canyon Elementary School	24240 La Gloria Circle	Newhall	CA	91321	2.56
S	Rosedell Elementary School	27853 Urbandale	Saugus	CA	91350	2.58
A	Summerhill Villa	24431 Lyons Avenue	Newhall	CA	91321	2.61
S	Valencia High	27801 N. Dickason Drive	Valencia	CA	91355	2.75
S	Bouquet Canyon Elementary School	28110 Wellson Drive	Santa Clarita	CA	91350	2.76
P	Santa Clarita Preschool & Infant Center	25022 Hawkbryn Avenue	Newhall	CA	91321	2.77
S	Leona H. Cox Elementary	18643 Oakmoor Street	Canyon Country	CA	91351	2.78

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TABLE A-1
Nearest Primary Public Facilities

Facility Type	Facility Name	Address	City	State	Zip	Distance From Site (miles)
P	Kinder Care Learning Center	18525 Soledad Canyon Road	Canyon Country	CA	91351	2.79
S	North Park Elementary	23335 Sunset Hills Drive	Valencia	CA	91354	2.87
P	Kinder Care Learning Center	27908 Seco Canyon Road	Santa Clarita	CA	91350	2.98
P	Canyon Country Preschool	18324 Soledad Canyon Road	Canyon Country	CA	91351	3.00
S	Plum Canyon Elementary	28360 Alfred Way	Santa Clarita	CA	91350	3.02
P	Kinder Care Learning Center	25940 The Old Road	Newhall	CA	91381	3.04
P	Tae Kwon Do Center U.S.A	28200 Bouquet Canyon Road, #A	Santa Clarita	CA	91350	3.04
S	Fair Oaks Ranch Community	17911 Wren Drive	Canyon Country	CA	91387	3.05
P	Sunshine Child Care & Learning Centers	27630 Newhall Ranch Road	Valencia	CA	91355	3.10
S	Sierra School	18047 Sierra Hwy	Canyon Country	CA	91351	3.12
S	La Petite Academy	28041 Seco Canyon Road	Santa Clarita	CA	91350	3.19
P	Sandcastles Child Care Centers	17956 Sierra Highway	Canyon Country	CA	91351	3.25
P	Santa Clarita Little People Daycare & Pre	17873 Sierra Highway	Canyon Country	CA	91351	3.32
P	Sunshine Child Care & Learning Centers	23601 Carrizo Drive	Valencia	CA	91355	3.38
P	Children's World Learning Centers	28180 McBean Parkway	Valencia	CA	91354	3.39
P	Payne Lawrence	28643 Deer Springs Drive	Canyon Country	CA	91390	3.40
S	Pico Canyon Elementary	25255 Pico Canyon Road	Valencia	CA	91381	3.41
P	Sunshine Child Care & Learning Centers	25820 Carroll Lane	Stevenson Ranch	CA	91381	3.51
S	Kenyon-Scudder High School	28750 Bouquet Canyon Road	Santa Clarita	CA	91390	3.64
S	Mountainview Elementary	22201 Cypress Place	Santa Clarita	CA	91390	3.88
S	Stevenson Ranch Elementary	25820 Carroll Lane	Stevenson Ranch	CA	91381	4.28
P	Mitchell Community Elementary	16821 Goodvale Road	Canyon Country	CA	91355	4.34
S	Sulpher Springs Community School	16628 Lost Canyon Road	Canyon Country	CA	91387	4.50
S	Stevenson Ranch Elementary N.	26995 Poe Parkway	Stevenson Ranch	CA	91381	4.95

Symbology:

- A Adult Care Facility
- H Hospital
- P Preschool / Day Care
- S Schools

Appendix B Site Background Levels and Soil Physical Properties

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**TABLE B-1
BACKGROUND STATISTICS FOR THE BERMITE FACILITY**

Parameter	Analytical Method	Depth (ft)	Detection Frequency (Detections Total)	Minimum Concentration (mg/kg) ^a	Maximum Concentration (mg/kg) ^a	Detection Limit for Reporting (mg/kg)	Mean Concentration (mg/kg) ^b	Type of Distribution	Standard Deviation (mg/kg) ^b	Geometric Mean (mg/kg)	95% Upper Confidence Limit of Mean
Aluminum	6010	0.50 - 2.50	16/16	2700	11000	\$2.00 - 55.00	7918.75	Normal	2144.52	7564.27	8658.61
Antimony	6010	0.50 - 2.50	0/16	0.5	0.55	1.00 - 1.10	0.53	Non-parametric	0.03	0.52	0.54
Arsenic	6010	0.50 - 2.50	16/16	3	6	1.00 - 1.10	4	Non-parametric	0.82	3.93	4.36
Barium	6010	0.50 - 3.00	32/32	24	92	1.00 - 1.20	52.13	Normal	17.59	49.09	57.4
Beryllium	6010	0.50 - 2.50	11/16	0.26	0.7	0.52 - 0.55	0.51	Non-parametric	0.17	0.47	0.58
Boron	6010	0.50 - 2.50	0/16	2.6	2.75	5.20 - 5.50	2.64	Non-parametric	0.05	2.64	2.67
Cadmium	6010	0.50 - 2.50	0/16	1.55	1.65	3.10 - 3.30	1.58	Non-parametric	0.04	1.58	1.6
Cerium	6010	0.50 - 3.00	32/32	8	44	0.54 - 3.60	24.81	Normal	8.6	23.27	27.39
Chlorate	300	0.50 - 2.50	0/16	1.55	1.65	3.10 - 3.30	1.58	Non-parametric	0.04	1.58	1.6
Chloride	300	0.50 - 2.50	0/16	5	5.5	10.00 - 11.00	5.25	Non-parametric	0.26	5.24	5.36
Chromium	6010	0.50 - 2.50	16/16	8	19	3.10 - 3.30	13.31	Normal	2.96	12.97	14.61
Chromium VI	7196	0.50 - 2.50	0/14	0.05	0.06	0.10 - 0.11	0.05	Non-parametric	0	0.05	0.05
Cobalt	6010	0.50 - 2.50	16/16	4	8	3.10 - 3.30	6.31	Non-parametric	1.35	6.16	6.91
Copper	6010	0.50 - 2.50	16/16	7	13	3.10 - 3.30	9.75	Normal	2.02	9.54	10.63
Fluoride	300	0.50 - 3.00	32/32	0.16	6.1	1.00 - 1.00	1.09	Non-parametric	1.36	0.74	1.5
Lead	6010	0.50 - 3.00	32/32	3	26	2.00 - 2.40	6.72	Non-parametric	4.63	5.8	8.11
Magnesium	6010	0.50 - 2.50	16/16	1400	4600	\$2.00 - 55.00	3018.75	Normal	874.24	2894.18	3401.9
Manganese	6010	0.50 - 3.00	32/32	86.4	309	5.00 - 5.00	177.74	Log-Normal	56.14	169.03	194.57
Mercury	7471	0.50 - 2.50	3/16	0.01	0.02	0.01 - 0.01	0.01	Non-parametric	0	0.01	0.01
Molybdenum	6010	0.50 - 2.50	0/16	1.55	1.65	3.10 - 3.30	1.58	Non-parametric	0.04	1.58	1.6
Nickel	6010	0.50 - 3.00	32/32	5	15	3.10 - 3.60	9.69	Normal	2.36	9.4	10.4
Nitrate	300	0.50 - 3.00	16/32	2.05	29	4.10 - 4.80	8.38	Non-parametric	7.83	5.33	10.73
Nitrite	300	0.50 - 2.50	0/16	1.55	1.65	3.10 - 3.30	1.58	Non-parametric	0.04	1.58	1.6
Perchlorate	IC1	0.50 - 2.50	0/16	0.5	0.5	1.00 - 1.00	0.5	Non-parametric	0	0.5	0.5
Phosphorous	6010	0.50 - 3.00	30/30	140	840	\$1.00 - 61.00	365.67	Log-Normal	167.2	332.87	417.54
Selenium	6010	0.50 - 2.50	0/16	0.5	0.55	1.00 - 1.10	0.53	Non-parametric	0.03	0.52	0.54
Silver	6010	0.50 - 2.50	0/16	1.55	1.65	3.10 - 3.30	1.58	Non-parametric	0.04	1.58	1.6
Strontium	6010	0.50 - 3.00	32/32	87	32.8	3.00 - 3.00	23.78	Normal	6.04	22.91	25.59
Sulfate	300	0.50 - 2.50	0/16	5	5.5	10.00 - 11.00	5.25	Non-parametric	0.26	5.24	5.36
Thallium	6010	0.50 - 2.50	0/16	1.05	1.1	2.10 - 2.20	1.06	Non-parametric	0.02	1.06	1.07
Titanium	6010	0.50 - 3.00	32/32	128	501	3.10 - 3.60	258.31	Log-Normal	102.74	239.29	289.11
Vanadium	6010	0.50 - 2.50	16/16	19	42	1.00 - 1.10	32.81	Normal	6.71	32.09	35.75
Zinc	6010	0.50 - 2.50	16/16	15	34	3.10 - 3.30	24.81	Normal	6.1	24.08	27.49
Zirconium	6010	0.50 - 2.50	0/16	2.6	2.75	5.20 - 5.50	2.64	Non-parametric	0.05	2.64	2.67

^aConcentration set equal to one-half of the detection limit for concentrations below the detection limit.

^bValues for mean and standard deviation for non-detected chemicals are artifacts of minor variations in detection limits.

Appendix C

Site Biological Communities Assessment

CDM

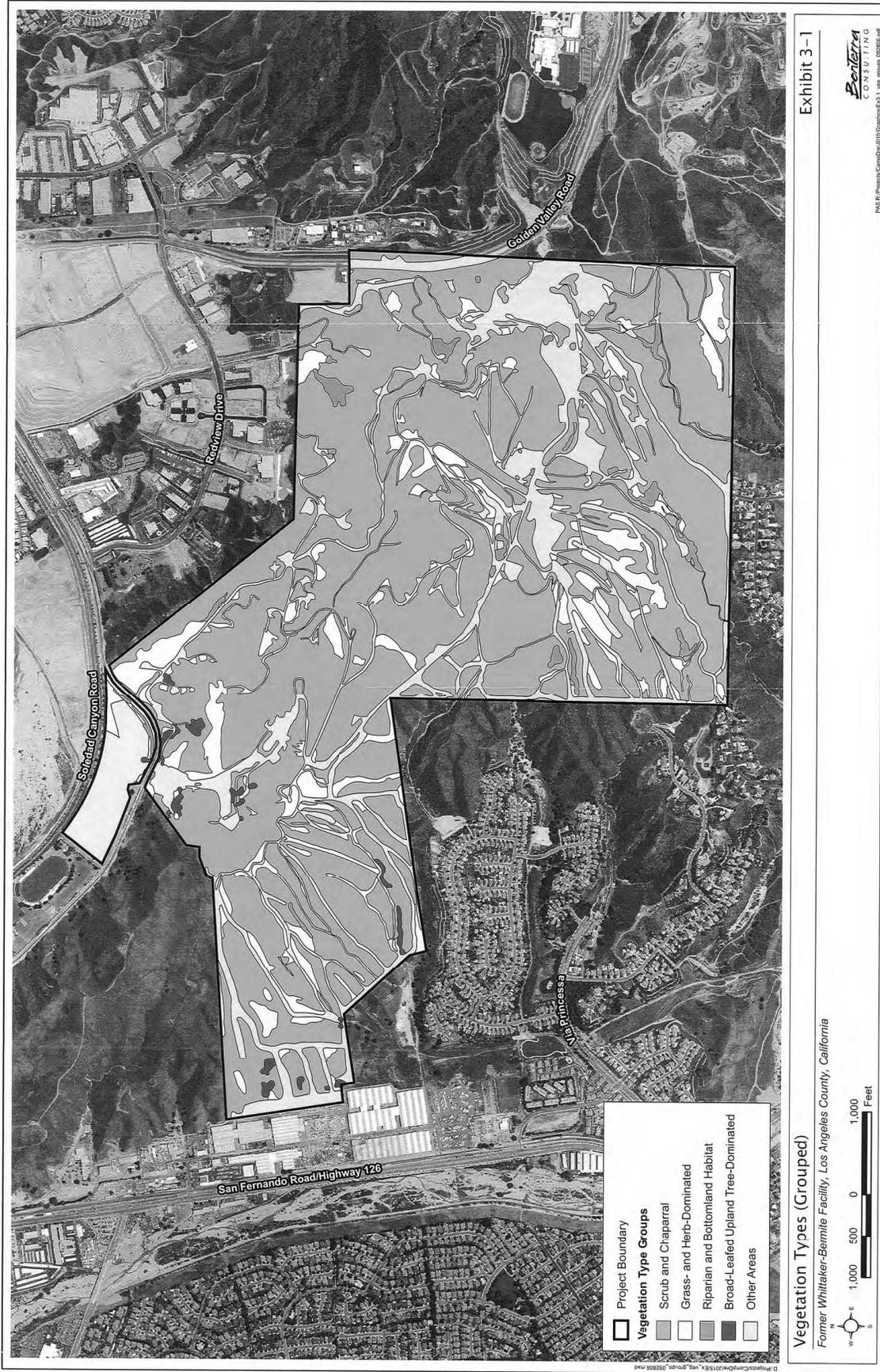
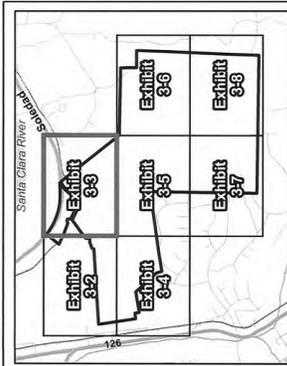


Exhibit 3-1

Bostera
 CONSULTING ENGINEERS
 10000 Wilshire Blvd., Suite 1000
 Los Angeles, CA 90024

Vegetation Types (Grouped)
 Former Whittaker-Bermite Facility, Los Angeles County, California





Vegetation Types

- Scrub and Chaparral**
 - CS - Coastal Scrub
 - CS/CHAP - Coastal Scrub/Chamise Chaparral
 - CS/AG - Coastal Scrub/California Annual Grassland
 - CS/DIST - Coastal Scrub/Disturbed
 - CHAP - Chamise Chaparral
 - CHAP/AG - Chamise Chaparral/California Annual Grassland
 - HLC - Holly-Leaf Cherry
- Grass- and Herb-Dominated**
 - AG - California Annual Grassland
 - AG/DIST - California Annual Grassland/Disturbed
- Riparian and Bottomland Habitat**
 - CW - Southern Cottonwood-Willow Riparian
 - MFS - Mulefat Scrub
 - ELD - Mexican Elderberry
 - UW - Unvegetated Wash
- Broad-Leaved Upland Tree-Dominated**
 - CLC - Coast Live Oak
- Other Areas**
 - DEV - Developed
 - DEV/DIST - Developed/Disturbed
 - DIST - Disturbed
 - ORN - Ornamental

Source: Aerials Extracts April 2006 (aerial imagery)
 Bon Terra Consulting, Sept. 2006 (vegetation data)

Exhibit 3-3

Detailed Vegetation Map

Former Whitaker-Bermite Facility, Los Angeles County, California



Benetra
 10000 Wilshire Blvd, Suite 1000
 Los Angeles, CA 90024
 Phone: (310) 206-1000
 Fax: (310) 206-1001
 Email: info@benetra.com

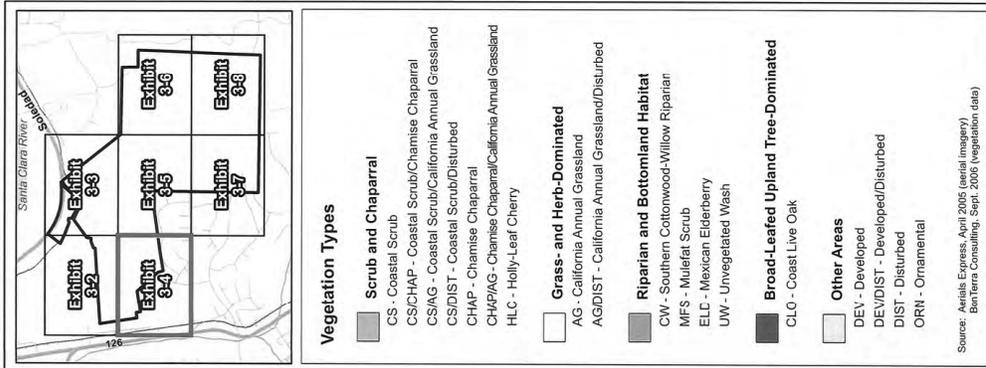


Exhibit 3-4

- Detailed Vegetation Map**
 Former Whitaker-Bermite Facility, Los Angeles County, California
- 0 150 300 Feet

Vegetation Types

- Scrub and Chaparral**
 - CS - Coastal Scrub
 - CS/CHAP - Coastal Scrub/Chamise Chaparral
 - CS/AG - Coastal Scrub/California Annual Grassland
 - CS/DIST - Coastal Scrub/Disturbed
 - CHAP - Chamise Chaparral
 - CHAP/AG - Chamise Chaparral/California Annual Grassland
 - HLC - Holly-Leaf Cherry
- Grass- and Herb-Dominated**
 - AG - California Annual Grassland
 - AG/DIST - California Annual Grassland/Disturbed
- Riparian and Bottomland Habitat**
 - CW - Southern Cottonwood-Willow Riparian
 - MFS - Mulefat Scrub
 - ELC - Mexican Elderberry
 - UW - Unvegetated Wash
- Broad-Leaved Upland Tree-Dominated**
 - CLO - Coast Live Oak
- Other Areas**
 - DEV - Developed
 - DEV/DIST - Developed/Disturbed
 - DIST - Disturbed
 - ORN - Ornamental

Source: Aerials Express, April 2005 (aerial imagery)
 Benterra Consulting, Sept. 2005 (vegetation data)



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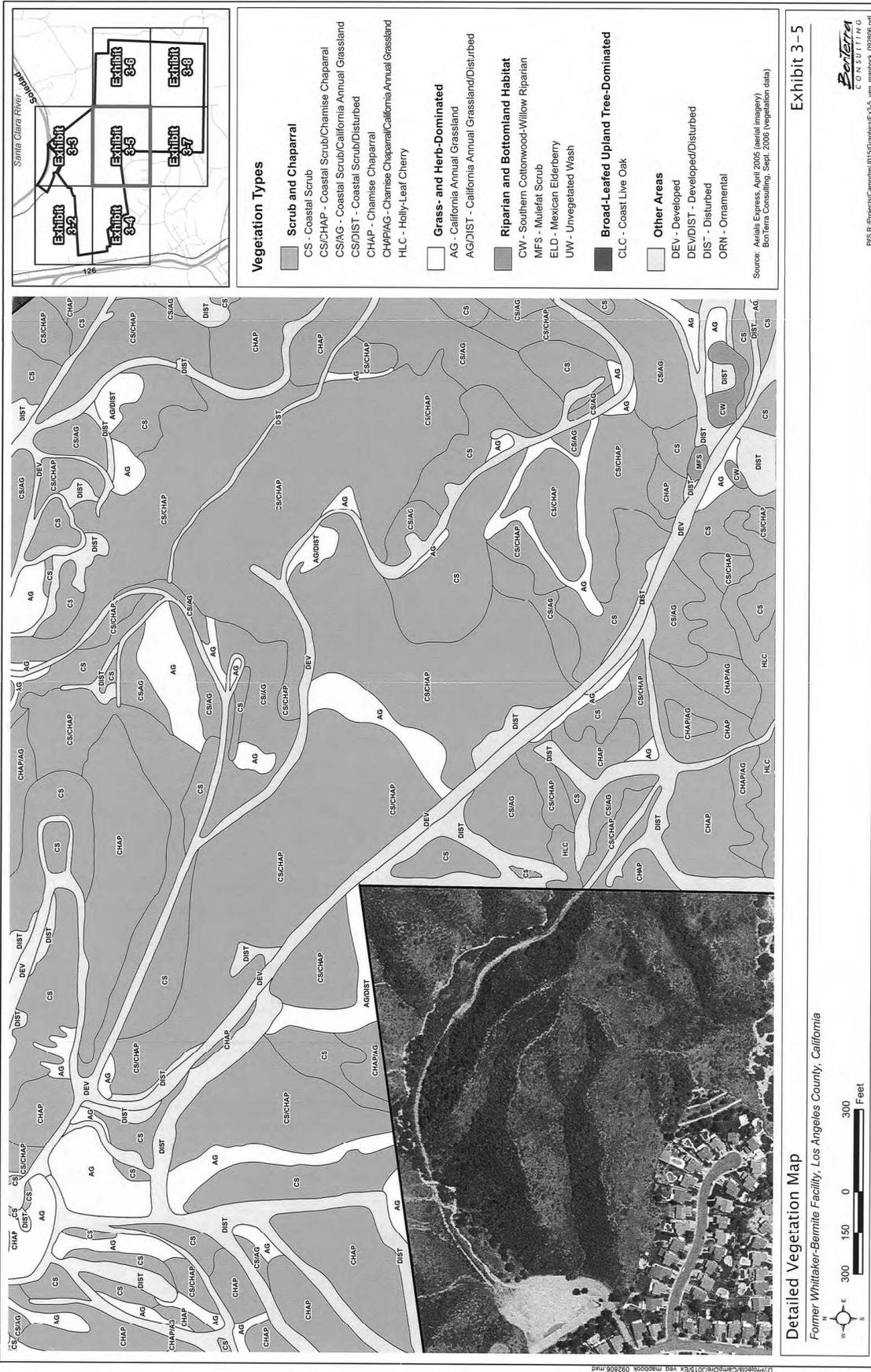
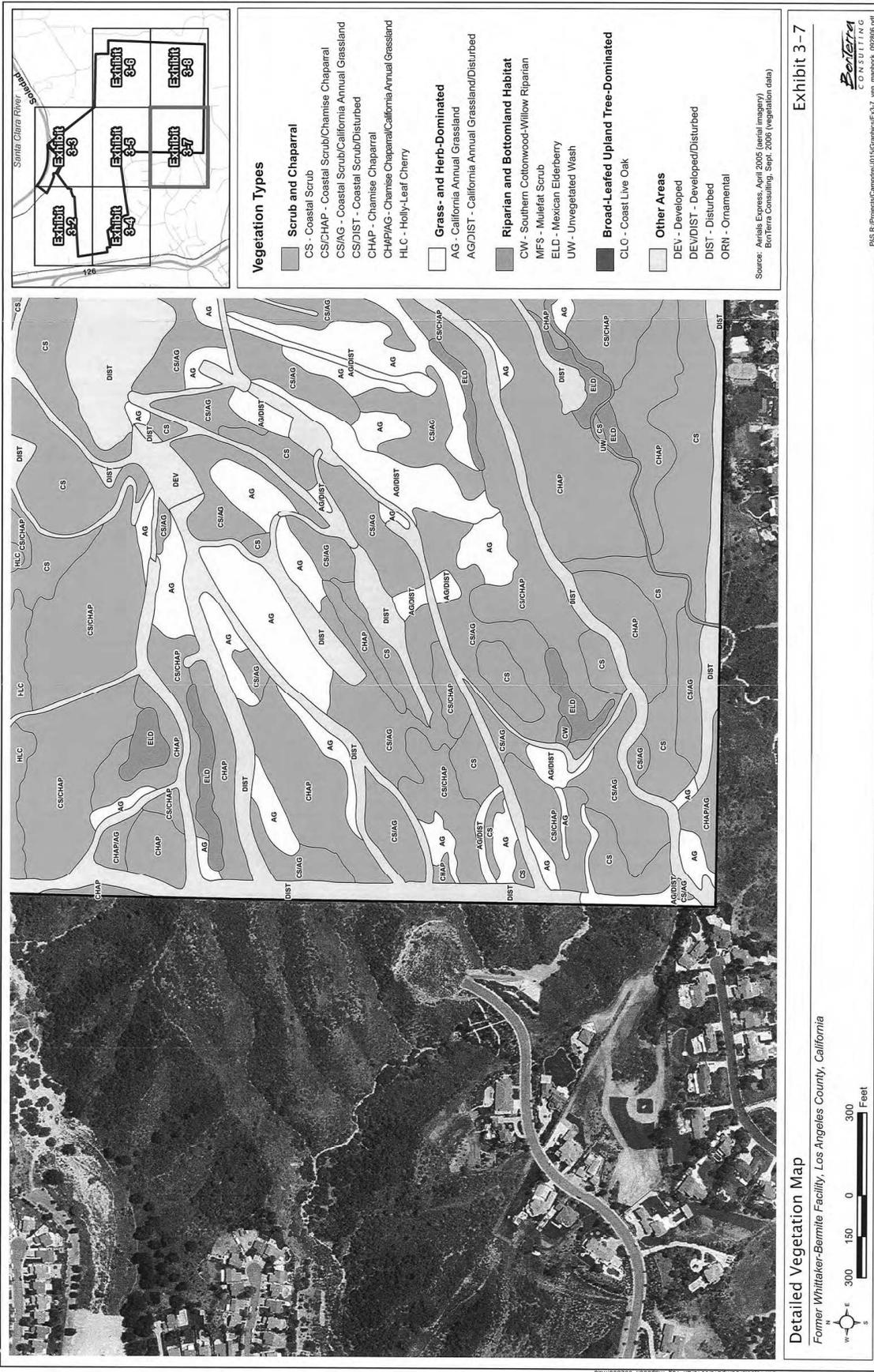
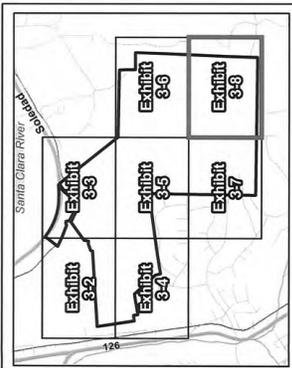


Exhibit 3-5



Penetra CONSULTING
15500 Wilshire Blvd., Suite 1000, Los Angeles, CA 90024





Vegetation Types

- Scrub and Chaparral**
 - CS - Coastal Scrub
 - CS/CHAP - Coastal Scrub/Chamise Chaparral
 - CS/AG - Coastal Scrub/California Annual Grassland
 - CS/DIST - Coastal Scrub/Disturbed
 - CHAP - Chamise Chaparral
 - CHAP/AG - Chamise Chaparral/California Annual Grassland
 - HLC - Holly-Leaf Cherry
- Grass- and Herb-Dominated**
 - AG - California Annual Grassland
 - AG/DIST - California Annual Grassland/Disturbed
- Riparian and Bottomland Habitat**
 - CW - Southern Cottonwood-Willow Riparian
 - MFS - Mulefat Scrub
 - ELD - Mexican Elderberry
 - UW - Unvegetated Wash
- Broad-Leaved Upland Tree-Dominated**
 - CLO - Coast Live Oak
- Other Areas**
 - DEV - Developed
 - DEV/DIST - Developed/Disturbed
 - DIST - Disturbed
 - ORN - Ornamental

Source: Aerial, Express April 2008 (aerial mosaic)
 BenTerra Consulting, Sept. 2006 (vegetation data)

Exhibit 3-8

Detailed Vegetation Map

Former Whitaker-Bermite Facility, Los Angeles County, California



BenTerra
 CONSULTING

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Appendix D Administrative Record

CDM

WHITTAKER-BERMITE REMEDIAL ACTION PLAN – OPERABLE UNIT 2 THROUGH 6 ADMINISTRATIVE RECORD

Document Title	Author/ Company	Date
Remedial Investigation Workplan (site-wide)	AME	August 1995
Public Participation Plan	Whittaker	1995; 2001, 2010
Draft Workplan for Baseline Risk Assessment and Ecological Screening Evaluation (site-wide)	EA	1996
Draft Remedial Investigation Report, (6 volumes) (site-wide)	AME	January 1997
Background Concentrations of Chemicals of Concern and Screening Methodology (Technical Memorandum) (site-wide)	AME	1997
Additional Characterization of Perchlorate-Impacted Soil at Area 55 Associated with Offsite Migration of Perchlorate in Surface Water (Technical Memorandum/Workplan)	AME	May 27, 1998
Results of Additional Characterization of Perchlorate-Impacted Soil at Area 55 Associated with Offsite Migration of Perchlorate in Surface Water Technical Memorandum/Report	AME	October 13, 1998
Site Assessment Workplan for OU1A and OU1C, Final Report	Knight Piésold	May 12, 1999
Site Assessment Workplan for OU1B, Final Report	Knight Piésold	May 12, 1999
UXO Avoidance and Downhole Clearance (site-wide)	UXB	May 17, 1999
Remedial Investigation Workplan for OU1Dn and OU1Ds	Knight Piésold	June 21, 1999
Remedial Investigation Workplan for OUE	Knight Piésold	April 7, 2000
Data Usability Memorandum for OU1Dn and OU1Ds Human Health and Ecological Risk Assessment	Knight Piésold	2000
Data Usability Memorandum for OU1E Human Health and Ecological Risk Assessment	Knight Piésold	2000
Report on the OEW Clearance, Construction Support for RI Activities in OU1 ABC, and E	UXB	2001
Report on the OEW Escort and Avoidance for OU1E	UXB	June 2000
OEW Clearance and Construction Support Report-Golden Valley Road Right of Way	UXB	November 2000
OU1 Site Investigation/Preliminary Endangerment Assessment Report, (2 volumes)	Knight Piésold	February 4, 2000
OEW Clearance, Construction Support, and Remedial Investigation Workplan for OU1A, B, C, and E	UXB	April 7, 2000
Site-Wide Human Health and Ecological Risk Assessment Workplan	Tetra Tech	May 17, 2000
Site-Wide Health and Safety Plan	Kanoa Company	November 1, 2000

Document Title	Author/ Company	Date
OEW Clearance, Construction Support and Remedial Investigation Workplan for OU1D North and South	UXB	July 26, 2000
Site-Wide Soil Sampling and Analysis Plan, Volume 1	Knight Piésold	August 18, 2000
Site-Wide Soil Sampling and Analysis Plan, Volume III: Waste Management Plan Investigation-Derived Waste From Site Assessment Activities	Hargis+Associates	August 14, 2000
Remedial Investigation Workplan for Operable Units 2 and 6	Morrison Knudsen Corporation	August 2000
Removal Action Workplan for OU1E	AESE	March 30, 2001
Ordinance and Explosive Waste (OEW) Removal Action Workplan	OER	May 2001
Workplan Addendum, OEW Clearance Activities in Support of Environmental Sampling OU1D North and South	EODT	December 20, 2002
Remedial Investigation Report and Baseline Risk Assessment for OU1E, (2 volumes)	Knight Piésold	February 28, 2003
Draft Remedial Investigation Workplan for Operable Unit 3	Knight Piésold	July 18, 2003
Draft Remedial Investigation Workplan for Operable Unit 5	Knight Piésold	November 17, 2003
Remedial Investigation Report and Baseline Risk Assessment for OU1D, (2 volumes)	Knight Piésold	February 2004
Draft Remedial Investigation Workplan for Operable Unit 4	Knight Piésold	June 8, 2004
Interim Report of Perchlorate Investigations for OU1Dn at Area 26, and Workplan for Proposed Additional Investigations	Knight Piésold	April 4, 2003
Supplemental Workplan for Additional Perchlorate Sampling in OU1Dn, Area 26	Knight Piésold	September 8, 2003
Feasibility Study for Operable Unit 1	Knight Piésold	February 27, 2004
Final Remedial Action Plan Operable Unit 1 & CEQA Initial Study, Mitigated Negative Declaration Approval	DTSC	February 3, 2005
Remedial Design Operable Unit 1	DTSC	February 3, 2005
Removal Activities for Red Phosphorous-Impacted Soil in Area 13, Operable Unit 5	CDM	June 27, 2005
Work Plan for UXO/OE Investigation, Clearance, and Construction Support	EODT	October 7, 2005
Underground Storage Tank Closure Report – Area 60, Operable Unit 5	CDM	August 5, 2005
Removal of Titanium Tetrachloride Ampoules, Area 9, Operable Unit 2	CDM	November 23, 2005
Removal Activities Report, Operable Unit 5	CDM	November 23, 2005
Site-Wide Remedial Investigation, Operable Units 2 through 6 (3 volumes)	CDM	July 7, 2006
Historical Site Assessment Report	EODT	December 2006
Derivation of Soil Screening Levels for the Protection of Human Health and the Environment	ENVIRON	April 2007

Document Title	Author/ Company	Date
Geophysical Prove-Out Report	EODT	June 2007
Site-Wide Feasibility Study, Operable Units 2 through 6	CDM	October 12, 2007
Draft Remedial Action Plan for OU2-OU6	CDM	May 14, 2008
Draft Remedial Action Plan for OU2-OU6	CDM	January 30, 2009
Characterization and Proposed Soil Removal Alternatives for Depleted Uranium	Energy Solutions	June 2009
Draft Remedial Action Plan for OU2-OU6	CDM	August 14, 2009
Transportation Plan for Waste Shipping	Energy Solutions	November 2009
Work Plan for Soil Removal	Energy Solutions	January 2010
Final Status Survey Plan for Depleted Uranium	Energy Solutions	February 2010
Draft Remedial Action Completion Report for OU1	CDM	March 22, 2010
Draft Remedial Action Plan for OU2-OU6	CDM	May 18, 2010
Draft Remedial Action Plan for OU2-OU6	CDM	July 12, 2010
Draft Final Status Survey Report for Depleted Uranium	Energy Solutions	November 2010

Appendix E Responsiveness Summary

CDM



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
9211 Oakdale Avenue
Chatsworth, CA 91311



Arnold Schwarzenegger
Governor

November 30, 2010

RESPONSIVENESS SUMMARY

Project Title: Whittaker-Bermite Facility, Operable Units 2 through 6

Project Location: 22116 West Soledad Canyon Road, Santa Clarita, California

Contact Person: Jose Diaz (818) 717-6614

In compliance with Health and Safety Code section 25356.1(e) (1) and the California Environmental Quality Act (CEQA) draft Mitigated Negative Declaration (MND), a public comment period was held from July 19th to August 19th, 2010. The purpose of the comment period was to provide the public with an opportunity to review and comment on the proposed cleanup activities described in the draft Remedial Action Plan for Operable Units 2 through 6 (draft RAP) and MND proposed by the Department of Toxic Substances Control (DTSC) for the subject property. A public hearing meeting was held on July 29th, 2010.

Written and verbal comments were received on the draft RAP and draft MND, during the comment period and public hearing. Transcripts from the public meetings and DTSC responses to written comments are included in Appendix E of the final RAP.

List of Revisions: DTSC has fully reviewed and evaluated the comments received. DTSC revised the following portions of the RAP:

- 1) The RAP was revised to clarify the status of the implementation of the OU1 RAP. In March 2010 Whittaker submitted a Remedial Action Completion Report (RACR) for the OU1 RAP implementation. DTSC issued a letter indicating that while additional soil excavation was not required. Additional soil vapor extraction may be necessary to address remaining volatile organic compounds contamination in soil gas pending the results of a soil gas survey.
- 2) The RAP was revised to include a description and a figure depicting the areas with the highest probability of requiring institutional and engineering controls.
- 3) The RAP was revised to state that technical and/or practical feasibility of a remedial technology will be evaluated and discussed between Whittaker and DTSC, but the final determination of implementability will be made by DTSC.

♻️ Printed on Recycled Paper

**RESPONSE TO PUBLIC COMMENTS
WHITTAKER-BERMITE PROJECT
SANTA CLARITA, CALIFORNIA**

Comment from Anonymous

Comment 1: Previously, before it was closed off, horse riders in Placerita Canyon were able to ride across Bermite.

For a long time the property has been closed off and riders escorted off the property.

We equestrians would like to have a trail access through the property once again. Please submit this to our board for consideration. Since Santa Clarita has grown up and every bit of land converted to fenced property, equestrians no longer have adequate trails and have been moving away. Sharing trails with bicyclists is the City's plan, but it doesn't work for us at all. The bicycles scare our horses and the bicyclists don't have sense to stop for us.

Response: Your comment will be forwarded to the City of Santa Clarita (City) Planning Department. The City has jurisdiction on recreational and open space designation.

Comment from Bob Rader

Comment 2: I want to submit my comments for the Whittaker-Bermite cleanup project. Our house is located east of Circle J Ranch Park, placing our house very near contaminated area.

We moved into this located approx. seven years ago. Shortly after moving into our house our dog (at the time; a healthy 75lbs Labrador retriever) started acting lethargic and his health went downhill quickly. He developed a tumor which within two years grew to the size of a small basketball. We put him to sleep within three years of moving in. Our entire family has also developed skin conditions. Last year we adopted a 6 year old Healthy Chihuahua from a friend. She has always had a clean bill of health. Within the year, she now has a thyroid problem and is losing her hair. I myself now have Eczema and require daily treatment. I am also one of the biggest consumers of our tap water and I have also developed stomach ulcers and an esophagus condition called "Barretts Esophagus".

Our entire family suffers from numerous allergy and sinus problems. We believe it is due to our proximity to the Whittaker-Bermite facility.

Response: Although some of the chemicals detected at the former Bermite facility can potentially cause skin and/or thyroid issues under certain exposure scenarios, the remedial investigation (RI), which included the collection and analysis of over 3,700 soil and soil-gas samples, indicated that the chemical impacts are limited to specific areas in the interior portions of the Site and there is no evidence of off-site migration of chemicals at levels that could pose a potential threat to human health and/or environment. The principal exposure scenario (or pathway) for the chemicals detected

at the Site would be through the drinking of contaminated groundwater beneath the Site; however, the likelihood of exposure is very low since the groundwater beneath the Site is not used for drinking. Drinking water for the community of Santa Clarita is provided by the Castaic Lake Water Agency and other local water purveyors. The quality of municipal water supply is routinely monitored by the local water purveyors to meet all regulatory requirements for safe drinking water and must report any findings of contaminants to the State Department of Health Services. Due to the detection of perchlorate in the local water supply, seven drinking water wells were shut down between 1997 and 2002. Tap water that meets regulatory requirements has since been delivered to residents from other sources. Therefore, DTSC does not have a basis to conclude that the health conditions described in this comment are the result of exposure to the contaminants from the facility, and suggests discussing these concerns with your doctor and veterinarian.

Comment from George & Suzannah

Comment 3: 1) How long will it take? 2) What are the dates from start to finish? 3) When is the road (Via Princessa) going to go through? 4) What will they build on the land when finished? 5) Is this all going to be professionally done & removed?

Response: 1) Implementation of the proposed remedy presented in the draft RAP is expected to take between 3 to 4 years. There will be periods of time with lots of visible activity on the site and other periods for evaluating performance of the cleanup activities. 2) Preparation of the technical document known as the remedial design is in progress. We anticipate some field activities to begin as early as this fall. 3) The construction schedule for Via Princessa Road is unknown at this time. DTSC will not be involved in the oversight of this work; however, DTSC will recommend that the community be notified prior to construction of the road. 4) DTSC does not have jurisdiction regarding land use matters. The City is responsible for planning and zoning decisions. 5) Cleanup of the property is being done by professional environmental contractors (Engineers, Geologists, Hydro-geologists, etc.) licensed in the State of California to perform environmental investigations and cleanups.

Comment from Faustino Altamirano

Comment 4: In my opinion it's good what you guys are doing, but I would like the rivers always clean and if anyone does something bad it would be better if they pay the price in jail or something like that.

Response: It is DTSC's mission to provide the highest level of safety, and to protect public health and the environment from toxic harm. DTSC is responsible for ensuring that responsible parties cleanup contaminated sites. In 2002 DTSC issued an order to Whittaker Corporation to investigate and cleanup the contamination at the Bermite site. Whittaker Corporation has complied with terms of the DTSC order during the Site assessment and cleanup activities.

Comment from Kenneth Dean

Comment 5: Considering that after years and years of bombs, guns, etc., being tested on the Whittaker-Bermite land, tons of toxic chemicals have contaminated this property seeping at very deep levels into the ground (soil). It is of concern and believed that there is no possible way to rid this soil by doing a so-called clean-up method. Only digging miles down and removing soil will it be cleaned.

However, should you continue to state that the property is cleaned of all toxic chemicals, and the fact shows otherwise, a large lawsuit will occur on behalf of the citizens of this City.

Response: The actions proposed in this draft RAP are an integral part of a comprehensive cleanup strategy that addresses all media (i.e. soil, soil gas, surface water, perched water, and groundwater) at the Site and the immediate surrounding area that have been contaminated as a result of historic manufacturing and testing operations. The draft RAP for OU2 through OU6 is part of the overall cleanup process being implemented at the Site. The ultimate goal of protection of human health and environment will be achieved through the collective implementation of this RAP, the RAP for OU 1 which is already in process, and other remedies that are being planned. The overall approach for cleanup of the Site integrates soil and soil gas clean-up with groundwater remedies in consideration of planned future land uses

Comment from Deborah Fielding

Comment 6: I am so happy that this clean up is taking place and proud of Santa Clarita for caring about our environment. It is so important not only for us, but our kids' future. Besides the cleanup sites, I know we have dump sites by Valle Verde area that is not good for our air, but realize we have to dump somewhere. Also, by Magic Mountain there is a water treatment place that used to smell so bad when driving on the Employee Road to Magic Mountain Employee parking. It might have been fixed, I just remember last summer, it smelled like sewer, it was terrible, but hopeful that was taken care of. Thank you for your care!

Response: Thank you for your comment.

Comment from Nanci Wyman

Comment 7: I would like more info on the Types of contamination in the soil, and groundwater. I work in the construction ind. Hazmat and cleanup contamination projects. Knowledge of protocols and all other impacted soil experience. Also, kudos guys, you're doing the right thing.

Response: A number of studies, including extensive sampling and analysis of soil, soil gas, and groundwater have been completed at the Bermite site. The results of these studies are located in the project files that are available for public review. Please feel free to access the DTSC web site www.envirostor.ca.gov/public for more detailed information.

Although a large number of chemicals were detected in soil samples during the investigations, the results of the Human Health Risk Assessment indicate that perchlorate contamination in soil is the most immediate risk to human health. According to the Human Health Risk Assessment conducted for this Site, perchlorate is the primary chemical of concern in soil, surface water, and groundwater. The primary chemicals of concern in soil gas are chlorinated solvents, with tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC). These chemicals are also of concern with respect to protection of groundwater.

Comment from George and Ann Figeredo

Comment 8: Thank you for your updates and communication regarding this matter. We trust that this matter will be taken care and our potential hazards and toxins will be 0 or minimal. Trust that we will have trucks (water) which maintain dust to a minimal and street cleaners maintained regularly.

Please notify us of the location and streets in the area which will be impacted and specifically where cleanup will be.

Response: Thank you for your comment. A map of the property depicting the general locations of contaminated areas is included in the draft RAP. The goal is to clean all contaminated soil within the property and to reuse the treated soil onsite. Significant dust control measures will be implemented to minimize any dust generated during excavation and handling of the soils. Air quality and dust levels will be monitored during the remediation activities. Excavation and soil handling activities will not occur during the high wind events. A Transportation Plan will be prepared and made available to the public should it be necessary to truck soil off site. DTSC will provide periodic updates during implementation of the RAP.

Comment from Linda Sandeen

Comment 9: Thank-you for the information packet. I see no problem to allow you to proceed as planned.

Response: Thank you for your comment.

Comment from Effie Bird

Comment 10: Hope to see Bermite developed some day soon.

Response: Thank you for your comment.

Comment from James Franklin

Comment 11: My property is located directly below the old Bermite Plant. The water that is incoming to my house is causing leaks in faucets, is brown in color, and I believe there is contamination in the water.

There must be a very thorough cleanup that certifies pure drinking water, before any development can be finished.

Response: Surface water emanating from property drainages is sampled and analyzed during rain events. Surface water during the intense rain events follows the natural streams and man-made channels and drains away from the neighboring properties. Please note that your local water purveyor is responsible for ensuring that drinking water served to your home meets California Department of Public Health drinking water standards. Please contact your local water purveyor directly to obtain the latest drinking water quality report.

Comment from Mr. & Mrs. Peter Rueff

Comment 12: Our main concern is the migration of contaminated water into the water supply. Also this water should not be included as water supply in water availability projection reports.

Air contamination during the cleanup is also a concern. No side steps should be taken for cost reasons, and careful supervision should be in place to make sure all safety regulations are followed.

Response: DTSC understands your concern regarding projected water availability reports for the purpose of planning and approving new developments; however, it is not within DTSC jurisdiction to review or approve the projection reports. The Castaic Lake Water Agency and the City are responsible for determining future water availability for developments.

Air quality protection measures will be implemented during the cleanup activities. Please also refer to DTSC response to the Comment 8 above.

Comment from Gary & Cheryl Lorraine

Comment 13: Please make cleanup as needed.

Response: Thank you for your comment.

Comment from Russell Bell

Comment 14: This site should be cleaned up ASAP as this has been going on for a long time. Cleanup method should be by the most efficient method.

Response: Thank you for comment.

Comment from Paul Strickland

Comment 15: Curious about what gets moved off-site, where it goes, and what happens to residual material left behind.

Response: The goal is to clean all contaminated soil onsite and to reuse the clean soil onsite. There is a possibility that some soil may not be treatable via the proposed methods in the draft RAP, if that is the case, this soil will be transported to a licensed facility for additional treatment and disposal. Confirmation sampling and a post-remediation risk assessment will be prepared to demonstrate that residual concentrations of chemicals do not pose an unacceptable risk to human health or the environment

Comment from David Ailman

Comment 16: Please continue to send copies in the mail.

Response: Thank you for your comment.

Comment from Charles Kunze

Comment 17: The land being part of the clean-up will be developed. It may be prudent to complete the entire clean-up before any construction. Consider if some unknown hazardous substances is found & requires treatment and removal.

Does DTSC have an onsite inspector on a daily basis during clean-up?

Response: The draft RAP presents the selected remedies to address the contaminated soils in OU2-OU6. Confirmation soil samples will be collected during the soil remediation activities to demonstrate that the clean goals identified in the draft RAP are met. DTSC does not have jurisdiction as to when construction (development) may begin. DTSC will have at least one inspector on the site at all times during clean up.

Comment from Evelyn Novak

Comment 18: When will be the time of completion? What plans are being made for land use?

Response: The anticipated time for completing the work proposed in the draft RAP is 3 to 4 years. At this time the only approved development plan is the Porta Bella Land Development. For further information on planning and development please contact the City.

Comment from Mario Olvera

Comment 19: Our home is located in a mobile home park that is close to this site being cleaned. You keep us informed of the progress and any new developments.

Response: DTSC will distribute information to the community when new developments arise or additional cleanup activities are planned.

Comment from Clem Moser

Comment 20: I own property on Rolling Ridge and open space adjacent to Bermite. I am extremely worried about health hazards, water contamination, dust, radioactive waste. Will this turn out to be another “Rocketdyne” like in the west end of the San Fernando Valley? Are health studies of the surrounding neighborhoods going to be conducted? Let’s hope you don’t wait years to find a high incidence of cancer. Then it will be too late.

Response: The environmental conditions at the Bermite facility are significantly different than the “Rocketdyne” facility in the Santa Susanna Mountains. Although some contaminants are common to both sites, the geology is completely different and unique. Area 57 of the Bermite facility was used to fire and test depleted uranium (DU) projectiles which contain low levels of radioactivity. The DU contamination was removed from the Site in Spring 2010. The draft RAP proposes a plan to clean-up the contamination and reduce the potential for future exposure to occupants and neighbors of the site. Once implemented, the proposed remedies will eliminate or minimize future threats to surface water and groundwater from Site contaminants. Dust emissions will be mitigated as required by the South Coast Air Quality Management District (AQMD).

The environmental investigation conducted on the Site indicated that the soil contamination is located within the interior portions of the Site. There is no evidence that contaminated soil from the Bermite facility has moved off-site. DTSC does not have the authority to conduct health studies and is unaware of any planned for the Santa Clarita community. Please contact the California Department of Health Services or the Los Angeles County Health Department for more information regarding health studies in your area.

Comment from Rick Drew

Comment 21: It was stated at a previous “CAG” meeting that the perchlorate contamination of the Saugus water wells was due to a “40 year creep”. I understand that OU7 is ground water extraction. Will this creep be stopped well before 40 or more years? And eventually stop the contamination of the ground water that will be pumped?

Response: The remedy for the contaminated groundwater (OU7) has not been formally proposed. However, it is estimated that the design, construction, and startup of the groundwater containment system will likely be completed within 3 to 5 years, followed by long-term operations, maintenance, and monitoring of the system. The containment system will operate until the sources of perchlorate have been eliminated or reduced to below

established federal and state drinking water standards known as maximum contaminant levels (MCLs). Groundwater monitoring will continue until there is clear evidence that the residual contamination does not pose a threat to human health or the environment.

Comment from Anonymous

Comment 22: When Bermite/Whittaker is forced into bankruptcy, who will pay for this program?

Moving contamination to a new location shifts the problem to a new area, then what?

Response: *The Whittaker Corporation is financially secure, and there are no indications that Whittaker would be forced into bankruptcy by the clean-up of contamination at the Site. After implementation of the OU2-6 RAP and the groundwater clean-up system, Whittaker will be required to provide financial assurance, guaranteeing that long term Operation & Maintenance costs will be funded. The goal is to treat all contaminated soil on the Site, and then reuse the clean soil onsite.*

Comment from Marie Robertson

Comment 23: I'm 67 years old. I was around when Bermite was pruning jobs. When Bermite closed, they wrote a contract as some kind of legal document saying this land was not to be used for 50 years or so (not sure of the year count). Now some developer wants to make money on the land. He should be the one to pay for the clean up, not taxpayers. This clean up has been blown way out of portion.

Response: *Thank you for your comment. Please note that Whittaker, through insurance funding, is paying for the cleanup and not the taxpayers.*

Comment from Ray Cowan

Comment 24: I am concerned with ground water contamination, dust, and removal routes. Special concern for the areas near Newhall Avenue & Sierra Highway.

Response: *Thank you for your comment. A thorough investigation of area groundwater indicates that the contamination does not extend south of the Bermite property in the direction of Newhall Avenue and Sierra Highway. The draft RAP proposes to treat the contaminated soil onsite and re-use the clean soil onsite, eliminating the need to truck large amounts of contaminated soil through City streets. Whittaker is required to comply with AQMD Rule 403 Fugitive Dust control. Daily construction dust will be monitored to ensure that dust emissions comply with AQMD regulations.*

Comment from Carole Lutness, California Clean Money Campaign

Comment 25: I am afraid that I will be unable to attend the meeting this evening at Santa Clarita City Hal tonight because of a previous engagement but I did want to express our concerns that no shortcuts, concessions or deals be made with those corporations that are responsible for the cleanup of the major portion of Whittaker-Bermite.

Our organization is a watchdog in the community to make sure that the citizen's interests, health and our children's future are protected. This contaminated 996 acre site is at the center of the City of Santa Clarita. We must have a complete and safe cleanup of this contaminated site.

We insist that those responsible for the pollution be expected to clean up the contamination to the highest standards. We need to be sure that future generations will not be faced with continued threats to the health and safety of our community.

Response: Thank you for your comment.

Comment from Lisa Sendewicz

Comment 26: My biggest concern is regarding this site would be 1) If the site is ever developed how do we know that the site is entirely clean? When grading would occur how do we know there will not be any poisonous dirt particles in the air when disturbed? 2) Water, it's great that the water is being treated but in the real rainy seasons, be it not many, but if we get a lot of rain can the contaminant area hold the run-off and is the treatment system big enough to handle large run off amounts? Can that water get into our drinking water?

These are my concerns. If this site was never to be built then it would not be as much of a concern but we all know it will. It needs to be completely clean not partially.

Response: 1) DTSC is responsible for ensuring that contaminated properties are properly investigated and cleaned up, and that they are safe for the intended use. DTSC does not have authority to make development decisions. However, rough grading for development could be conducted concurrently with the excavations necessary for soil clean-up as an integrated approach under a comprehensive soil management plan and close supervision from DTSC. In either case, the Site will not be approved for occupancy until DTSC has determined that there are no chemicals in the soil that could pose a health risk to future users of the Site. This will be achieved through confirmation sampling after implementation of the cleanup plan proposed in the draft RAP.

2) One of the goals of the draft RAP is to permanently eliminate contaminants in shallow soil that could potentially migrate off-site in surface water. In the meantime, a number of steps have been taken to prevent the contamination from moving off-site. Retention structures were built to collect rainwater runoff and transfer it to the onsite holding tanks and treatment system. There, it is filtered and treated for all potential contaminants, if present, and legally discharged under the permit issued by the

Regional Water Quality Control Board (RWQCB). Section 1.3 of the draft RAP includes a description of the comprehensive strategy to monitor and contain the movement of contaminants in groundwater, within and off the property, to prevent further impacts to the local aquifer.

Comment from Annie Murray

Comment 27: This site is near my children's high school. What is the environmental potential harm with the cleanup? Airborne, water table, etc...

Response: DTSC requires that cleanup be performed in a manner that it does not harm people or the environment. There is no current threat of exposure to the contamination in soil and groundwater. The proposed cleanup plan for the contamination will prevent the potential for future exposure. Whittaker will be required to implement dust control measures, and monitor dust emissions during the clean-up process to ensure compliance with AQMD dust emission regulations. In addition, Whittaker is required to maintain and implement the Site Health & Safety Plan that ensures the workers and neighbors are not exposed to harmful contaminants

Comment from Mr. & Mrs. Donald Poindexter

Comment 28: We have been residents here since 1975 and remember repeated explosions occurring while the Bermite property was still in use. We are very happy the area will be cleared of any remaining toxic substances. We do not think the property should ever be used for development, certainly not for housing of any kind. The Plum Canyon area has a huge area ready for building. But, we really don't need more housing. Our water is already in short supply. So the cleanup is great for the environment, but stop there. Thank you for listening to our opinion. Please continue to keep us informed via regular postal mail.

Response: Thank you for your comment.

Comment from Betty Barsha Hedenberg

Comment 29: We believe the Whittaker-Bermite site should be cleaned up to the fullest extent possible. Our concern is primarily with the groundwater clean up; verification of the purity of the water is vital. What are the steps to be taken in cleaning up the groundwater? What agencies, federal, state, and/or local will be participating in the cleanup process? How is the groundwater cleanup procedure going to be verified? What is the estimate of time involved in the groundwater cleanup? What agencies will be involved in attesting to the purification and verification processes? Will information be made readily and accessibly at all stages to the public? What funding procedures are to be implemented? Will community members be required to pay any kind of fee or tax?

Response: The remedy for groundwater contamination will be formally presented in the OU7- (groundwater and deep soils) RAP. Whittaker submitted the OU7 feasibility study (FS)

to DTSC for analysis of potential groundwater clean-up options. The OU7 FS addresses all three zones of groundwater (i.e. Northern Alluvium, Saugus, and Perched Water) at the Site. Preliminary steps are underway to contain and reduce perchlorate and VOC contaminated groundwater in the Northern Alluvium aquifer. In addition, a plan for a pilot program for containment and clean-up of perchlorate and VOC contaminated groundwater in the Saugus formation along the western Site boundary is being implemented. The data obtained from this pilot program will be used to design a full-scale groundwater containment system for the Saugus formation. A pumping and wellhead treatment system is operating at the Saugus 1 and 2 production wells. Additional information regarding this system will be provided by the State Department of Public Health and your local water purveyor.

DTSC is the lead agency overseeing the soil and groundwater cleanup program. The RWQCB and California Department of Fish and Game oversee the investigation and remediation of the Site drainages and seasonal streams. The RWQCB is the lead agency with respect to the permitting of any water treatment and discharges associated with the cleanup of the Site. The AQMD is the lead agency with respect to the permitting of any remedial or investigation processes that result in the generation of regulated air pollutants. The California Department of Public Health Drinking Water Division & Environmental Management (DPH) is overseeing the Saugus 1 & 2 production wells restoration project which is being managed by the Castaic Lake Water Agency.

The groundwater cleanup and monitoring is expected to be a long-term effort. Groundwater will be verified clean when the groundwater monitoring well sampling results indicate that contaminant levels conform with DPH's Policy Memo 97-005 Policy Guidance for Direct Domestic Use of Extremely Impaired Sources. DTSC will post all documents and decisions on DTSC's Envirostor data base and will issue periodic updates to the public on the cleanup of the groundwater.

Whittaker is paying for the cleanup of contaminated groundwater and will be required to provide financial assurance for the long term cost of the operations and maintenance of the treatment and monitoring systems.

Comment from Daniel Blankenship, Dept. of Fish & Game

Comment 30: Thank you for the opportunity to comment on the above referenced RAP and Draft Mitigated Negative Declaration. The Department concurs with the biological mitigation measures BIO 1 – BIO 7 with specific clarification comments.

1. BIO 1 - BIO 3 reference focused surveys for coastal California gnatcatcher, least Bell's vireo, and arroyo toad. The term protocol should replace focused because these listed species have specific survey protocols that when followed provide for the most reliable survey methodology.

2. BIO 4 provides measures to survey for listed plant species. The attached outline will help guide the botanists selected to conduct botanical surveys. If State or Federal listed plants or CNPS list 1B plants are observed consultation with USFWS and CDFG is required and may necessitate a Incidental Take Permit for State listed plants depending on

proposed clean up actions. The wording "if feasible" does not apply to listed species. Further consultation is necessary to determine a course of action.

3. If remedial actions have the potential to impact the bed, bank, or channel of a stream a Streambed Alteration Agreement Notification will need to be completed and submitted. <http://dfg.ca.gov/habcon/1600/>

The Department appreciates the opportunity and priority to remediate this site. The Department will work with DTSC to insure that all potential biological resource impacts are minimized and mitigated in order to appropriately conserve the biological resources and comply with environmental laws and regulations while implementing priority remedial actions to clean up the site.

(Attachment not included in this document, but is available upon request.)

Response: Thank you for your comments. The biological mitigation measures will be revised per your clarifications.

Comment from Elisabeth Villagrasa

Comment 31: Thank you so much for the thorough report. I really appreciate to be kept informed about what's going on in the Santa Clarita Valley.

Response: Thank you for your comment.

Comment from Shirley Hollingsworth

Comment 32: 1) How long will it take to clean up the Whittaker Bermite property? 2) When will the water be safe to drink? 3) Please keep me informed regarding the progress of the cleanup. 4) When and where is the next Community Advisory meeting?

Response: 1) The work proposed in the draft RAP is expected take three to five years, followed by long-term operations and maintenance. 2). DTSC is unaware of any plans from local water purveyors to pump groundwater from beneath the Site for municipal use. Groundwater would be considered safe when it is in compliance with standards established by the DPH-Drinking Water Division. 3) Periodic notifications and updates will be sent out to the community. 4) The CAG meetings are currently being scheduled by Cam Noltemeyer, a community volunteer. Please contact Yvette LaDuke at 1-866-495-5651, 3, 2 or yladuke@dtsc.ca.gov for contact information.

Comment from Valerie Thomas

Comment 33: 1) If, after the Whittaker-Bermite site is declared clear, additional contaminants are discovered, is Whittaker responsible for cleaning those – or is the new land owner? 2) While I realize DS-12 is under Santa Clarita's purview, I wish to express in

every venue possible, I regard that order of paramount import and do not want to see it abrogated.

Response: 1) Since Whittaker has been identified as the sole Responsible Party, Whittaker will be responsible for any new contamination discovered. However, future owners of the property may assume some degree of liability upon executing the property transfer.
2) Thank you for comment regarding DS-12. DTSC understands the importance of this ordinance to the community and stakeholders.

Comment from Cam Noltemeyer

Comment 34: While Alternative 3 appears to offer every option for clean up on site it appears there are so many pilot programs included it makes the clean up appear to be more of an experiment on a site that is surrounded by homes and schools (Golden Valley High School and four preschools schools).

First Comment and questions - Porta Bella and DS-12

The Porta Bella Plan grading envelope was incorporated into the RAP- Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan and NOT the current grade.

You propose a perchlorate soil treatment plant set up for stockpiling contaminated soil on a fairly large scale. In what area will this be located? How close will it be to the Golden Valley High School? How much truck traffic will this generate on the site? Soil will be transferred from how many OUs to this site? Will the treated soil be returned to the site from which it was taken?

Response: *The cleanup process proposed for OU2 through OU6 will essentially be identical to the OU1 cleanup process that was recently implemented. The infrastructure already in place in OU1 such as at Treatment Pad Nos. 1, 2, and 3 could be utilized for part or all of the OU2-OU6 cleanup operations. Use of these treatment pads will depend on the haul distances and transportation routes.*

Soil will be stockpiled before processing at Treatment Pad 1 (TP1) which is located within OU1. TP1 is located approximately one third of a mile from the Golden Valley High School property boundary and approximately two hundred feet lower in elevation. The amount of truck traffic onsite depends on the rate of soil processing. At some point, up to fifteen haul trucks may be used to transport soil from one area to the treatment pad, and then return the clean soil to the general area from where the soil was removed.

How much grading is proposed on site during remediation testing to grade level in the Porta Bella Plan? Will this allow grading on the site under the guise of remediation testing in violation of DS-12 in the development agreement?

Response: Grading for development is not being proposed in the draft RAP. Tables 2 and 3 of the California Environmental Quality Act (CEQA) Initial Study lists the areas, acreage and volumes of soil targeted for excavation. The Porta Bella Plan "grading envelope" is referenced only in the context of cleaning soil down deep enough to accommodate future construction activities on the property. This is done to prevent the potential for construction workers and future occupants/users of the Site from being exposed to residual contamination in the soil. Excavation depths identified in the draft RAP are proposed in relation to the final surface elevations referenced in the Porta Bella Plan, and creates a buffer zone of clean soil that will provide protection to future Site workers, occupants, and when the Site is developed. Whittaker is required to obtain grading permits from the City for the purpose of excavating and backfilling areas for remediation.

Second comment and questions - OU1

OU2 - OU6 RAP will consider deep soils for OU1 not addressed in the OU1 RAP. We were told that deep soils would be addressed in OU7. The OU1 -OU6 Rap states in 1.31 "significant uncertainty regarding the practicability of a remedial alternative for deep perchlorate impacted soils" The en-situ technologies have not been tested or proven on treatment of deep soil and groundwater. (1.32)

OU1 has perchlorate contamination in deep soils , include OU1E, area 7,43,55 and Building 329. Area 55 contamination goes down 200 feet. OU1 has perched water in areas 55 and 26.

Ex-Situ Bioremediation is being proposed for the OU1 area if technically and economically viable. What if it isn't? How will OU1 be cleaned up?

It is very important that reports regarding OU1 be provided to the public during this RAP.

Response: This draft RAP proposes to test in-situ (in-place) bioremediation treatment technologies for perchlorate contaminated soil and perched groundwater that exists beyond the scope of the OU1 RAP (Perched water is known as local water that exists at shallow depth, and above the regional groundwater table. It is "perched" on a relatively impermeable soil layer below the ground surface). If this technology is not successful, the remaining contamination will be addressed in the OU7 RAP.

The OU1 RAP defined the process or technology of treating excavated soil in the treatment pads as ex-situ bioremediation. The OU1 Removal Action Completion Report (RACR) was submitted to DTSC earlier this year. DTSC issued a letter to Whittaker indicating that no additional excavation of contaminated soil was required, but additional soil vapor extraction was required. Additional revisions to the RACR were also required. The RACR document will be uploaded to the Community Involvement section of the Whittaker webpage in Envirostor.

Third -Comment and questions - OU 6 , RCRA Unit and Metrolink Property

OU6 is a 2 acre site within OU2. TCE and VOC impacts persist and extend beyond a depth of 200 feet.(4.1.6) It has been excavated to a depth of approximately 60 feet. It will be addressed in a separate report. It was identified as Area 1 on the maps provided to the public at the public hearing.

The plan is for "clean closure" of the RCRA Unit along with the alternative of "waste in place". To be submitted in a separate closure report. (7.1.6)

I can not locate any plans in this RAP for a clean up of OU6. What are your plans for cleaning up this site? It appears it may be to just fill up this 2 acre site and do nothing?

The comment "waste in place" makes me wonder if the other 13 RCRA Units were cleaned up or just covered up. Would you please provide for the public the documentation on the clean up of those 13 sites.

Why is the 10 acre Metrolink site listed as part of this RCRA site. Where are the clean up plans for that site? I couldn't locate any clean up plans for this site

The separate reports on OU6 and the metrolink station need to be provided to the public as part of this RAP.

Response: *Whittaker first applied for a Resource Conservation and Recovery Act (RCRA) Permit application for hazardous waste management units (HWMUs) in October 1980 and received an Interim Status Permit on September 25, 1981. A modified permit application was submitted in 1984 and a RCRA Permit for 14 HWMUs was issued February 21, 1986.*

Whittaker initially submitted three letters to DTSC in 1983 describing closure activities conducted at the HWMUs prior to approval of a closure plan. A final closure plan was approved by the U.S. Environmental Protection Agency (EPA) and DTSC for the HWMUs in December 1987. Most of the environmental reports prepared prior to 1994 were associated with the investigation and cleanup activities for the fourteen HWMUs. Thirteen of the 14 HWMUs have received clean closure certification acknowledgment from Cal-EPA. The reports and letters associated with the closure of the HWMUs are currently not available in electronic format. Hardcopies of these documents are available for review in the DTSC Chatsworth office file room.

The former surface impoundment unit in OU6, which is also identified as Area 1, is the only remaining permitted RCRA unit at the Site. Previous soil remediation operations for Area 1 included the excavation of between 50,000 and 60,000 cubic yards of soil to a depth of approximately 60 feet below ground surface, followed by soil vapor extraction from 1988 through 2002, during which approximately 40,000 pounds of VOCs were removed and treated. Eighty seven rounds of quarterly RCRA groundwater monitoring have been performed at this area which all has shown no migration of contamination to the Saugus Aquifer directly under the RCRA unit.

The RCRA compliance process is different from the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) process. RCRA regulations are more prescriptive in that they are intended for owners/operators of larger operating hazardous waste treatment, storage and disposal facilities. OUI through OU5 and OU7 are being remediated under CERCLA.

Whittaker is required to comply with RCRA surface impoundment closure requirements in accordance with California Code of Regulations, Title 22T Section: 66264.228 for OU6. In compliance with this process, Whittaker submitted a Closure Report in April 2007 with a recommendation to close the unit with waste in place. Closure with waste in place triggers an additional set of requirements including the need to obtain a RCRA Post-Closure Permit for post-closure care of the unit. Whittaker requested additional time to re-evaluate its decision and in November 2009 submitted a request for clean closure of the unit based on their review of the history of operation and current condition of the former surface impoundment area. DTSC is currently evaluating their request.

The 10-acre Metrolink property is listed as separate site in DTSC's Envirostor database to document environmental assessment that was conducted in April 1993 to determine if the site was safe for the construction of the train station and parking lot facilities. The 10-acre site is part of OU5. Contamination is being addressed in the OU2 through OU6 draft RAP.

Fourth Comment and questions - Golden Valley High School

Golden Valley High School was built when a significant ridge line was eliminated to build the Golden Valley Road. In building that road a portion of Whittaker-Bermite/Porta Bella was taken and used for the road. Golden Valley High School was part of that grand plan. Golden Valley High School is across that road from Whittaker-Bermite. Active oil fields are also across the road from the Golden Valley High School.

After the school was built the oil company was granted the right to slant drill oil wells under the school site. Because of the thickness of the oil, steam injection wells are used to produce the flow of the oil. Even though it was requested in the EIR for the school no liner was placed under the school buildings. Because of this I have real concerns that any VOC or other contaminates left on site of the Whittaker Bermite site might pose a threat to the school and the students.

In Soil Gas (5.2.5) Sensitive land use - cancer risks and hazard are within or greater than the target risk range in MANY areas of the site.

Please disclose if this has been taken in to consideration for off-site properties in these remediation plans?

Response: Results of environmental investigations indicate that VOCs and other contaminants present on the Bermite property do not pose a health risk to students, occupants, or visitors of the Golden Valley High School. However, there is the potential for future users of the Bermite property to be exposed to the contamination found on-site if it is not cleaned-up. Once the clean-up is completed, DTSC will require confirmation sampling and a post-remedy health risk assessment to ensure that the cleanup goals established for the Bermite property are met.

Fifth - Comments and Questions - Risk Tolerance Levels

Remedial goals consider different risk tolerance levels for alternative land uses. (i.e. commercial/industrial, multifamily, open space, recreational use)

These alternative land uses will have more contamination and should not be used for recreational use. (i.e. parks, play grounds) Our children deserve clean areas.

Multifamily housing should receive the same unrestricted use clearance as single family homes under the RBTC standards. They often have a higher concentration of children who play on the ground.

There are so many exceptions to unrestricted use with this risk based approval that it raises a question to it being "most protective of human health and the environment"?

Response: DTSC establishes clean-up goals for a property based on proposed future land use. Based on the approved development plan for the Bermite Site, DTSC will require the unrestricted (sensitive-use receptor) standards be implemented as the clean-up goal for the Bermite property. Unrestricted land use standards are the most conservative and restrictive clean-up levels that can be established for a Site. The RBTCs for single-family residential include a greater safety factor to account for the added potential exposure pathway through ingestion of perchlorate from home-grown produce.

Clean-up goals are developed for different land uses by considering the amount of time spent and the type of activities performed in an area for the given scenario. Because park visitors and workers spend less time and usually have less contact with a specific area than residents, the RBTCs for these alternative land uses are higher than those for the unrestricted use. Therefore, areas of the Bermite property proposed for park land or for commercial/industrial uses will have less restrictive clean-up goals than the areas slated for residential use. Future users of the common areas will not have the same consistent contact with that that specific environment as they do with a residential property where people spend the most time. Although the clean-up standard is less restrictive, the protection level is still the same according to the health risk calculations.

Sixth - Comment and Questions - Screening - Level HHRA - 5.2.5

It has already been documented that perchlorate is present on the NTS property.

Why weren't groundwater pathways addressed in this RAP?

The global site remediation being used in this RAP makes it extremely difficult for the public to comment and ask questions in just thirty days. This is especially true in July and August when many are on vacation. Additional time would be appreciated.

Response: Perchlorate was detected in a drainage at very low concentrations within NTS (180 parts per billion). This drainage originates within OU1 on the Bermite property, which was cleaned up during the implementation of OUI RAP. Groundwater (OU 7) contamination will be cleaned-up according to a plan that is planned for development in 2011. DTSC does not plan to extend the public comment period at this time; however, please feel free to contact us if any additional questions arise. We will provide the

public any information we have and answer any questions raised regarding the clean-up of this Site.

Comment from Katherine Squires, Sierra Club

Comment 35: The Whittaker-Bermite site is an area of great interest to the Sierra Club. Our main concerns are about how and where chemical measurements (for the clean-up) are being made so that their assessment can be trusted. Of particular interest to us is OU2.

BIOLOGY

Any proposed development would further reduce the amount of riparian habitat (the home of numerous plant and wildlife species). It will also threaten and/or eliminate species from the area due to loss of habitat.

GEOLOGY

In an area prone to landslides, it is shocking to find that development is planned for this area. I recently did research on this area and found (through a non-exhaustive search) that the area includes an active portion of the San Gabriel fault. This statement can be supported by a reputable source (Swanson, Brian J., 2001, Geologic Investigation of a portion of the San Gabriel Fault Southeast of Bouquet Junction, City of Santa Clarita, Southern California in *Geology and Tectonics of the San Fernando Valley and East Ventura Basin, California/pacific section, American Association of petroleum Geologists Guidebook GB77*). This is very concerning because it means that there is a serious threat of landslides and a very high-risk of potential groundwater contamination. This area is a hazard zone and should not have development on it. These concerns must be addressed. This area is prone to tectonic uplift and includes very steep terrain. This means accessibility is limited and significant amounts of grading will dramatically alter the landscape.

AIR QUALITY

Another serious concern with the site is the substantial effect the proposed development would have on the worsening air quality that we have in our area. It is obvious that the cumulative air pollutant emissions in the area would contribute to the degradation of local and regional air quality. The Santa Clarita Valley already has some of the worst air quality in the nation. Previously, soil was removed from the site and transported through the Santa Clarita Valley without anyone being told of its removal. The soil was polluted with radioactive uranium. This type of “clean-up work” is a concern to residents who would like to have better communication/involvement regarding the transportation of harmful chemicals by their homes and places of work.

Response: *Investigations to identify and delineate chemicals of concern have been conducted in accordance with State and Federal guidelines and protocols. These investigations targeted areas where past operations involved the use of chemicals*

as described in Section 2 of the RAP, with the intent to determine the full nature and extent of contamination in all media such as soil, soil gas and groundwater. Several thousand soil, soil gas and groundwater samples have been collected and analyzed using State certified laboratories. Any detected chemical concentrations were compared to established or recommended safe levels to determine if they pose a threat to human health or the environment. The lateral and vertical extent of contamination has been delineated well enough for remedial planning. However, additional more detailed delineation may be necessary in certain areas to fine tune cleanup activities.

The purpose of the RAP is to present the selected cleanup methods that will be used to remove contaminants that could pose a threat to future users or occupants of the site. This RAP include cleanup of soil and soil gas. Cleanup methods for groundwater will be presented in the OU7 RAP. While the RAP considers future land uses, the RAP does not propose to develop the property. The residents will be periodically notified of any cleanup work.

Comment from Lynne Plambeck, SCOPE

Comment 36: We would like to begin by expressing concern that the MDN was not mailed out to concerned members of the community including the attendees of recent Citizens' Advisory Group meetings. The County and City regularly mail such documents to concerned local citizens. While you did mail a public information piece, the MDN and Rap was not distributed, at least to our knowledge at the public hearing which we attended. It was also difficult to locate on your website because counter-intuitively it was not at the top and in the forefront of your "Reports" page, but rather in the middle of the page under other reports of a much older date.

Response: DTSC mailed out a Fact Sheet notifying the community and stakeholders of the availability of the draft RAP and CEQA documents. In addition to the documents made available at the local repositories, DTSC posted the MND and RAP on the DTSC Envirostor website which is available to the public. These documents were posted prior to the onset of the public comment period at the top of Community Involvement page under the "Documents Available for Public Review". Also, a toll free phone number and e-mail address for the DTSC Public Participation Specialist (PPS) were listed on the fact sheet. The DTSC PPS is available as a resource for the public to locate Site information, respond to questions, and coordinate communications with the DTSC project team.

Both documents were available at the RAP Hearing. DTSC is unaware of any CAG meetings that occurred after the draft RAP was approved by DTSC and made available for public comment. DTSC has informed CAG members that we will make every effort possible to attend all meetings as requested by the CAG. DTSC committed to being accessible and transparent to the community. If you have any specific suggestions on how we can improve our Envirostor webpage, or our outreach efforts please send them to us.

DTSC does not generally mail these documents to the public due to resource limitations; however, they are mailed to community members upon request.

At the recent public meeting DTSC stated that it conducted investigations and determined that perchlorate and volatile organic compound (VOC's) still in the soil present a health problem. Interestingly, depleted uranium was not mentioned in the list, nor was it mentioned in the MND. It is mentioned you your public information flyer where it states that:

“Small fragments of DU found in OU-3 were characterized and removed in March and May 2010 in accordance with a workplan approved by DTSC. A post-clean-up survey was done to ensure that the cleanup goals were met.”

During the public hearing your staff disclosed that some 240 trucks carrying approximately 4800 cubic yards of depleted uranium contaminated soil were hauled off the property beginning in March. No public notice of this removal was given. Unmarked trucks moved the contaminated soil along undisclosed routes through the property and along our freeways. According to DTSC, this contaminated soil was hauled off to a radio active hazardous waste dump in Utah.

Depleted Uranium is used to harden the metal on warheads. Areas subjected to such bombs now show high radiation readings, along with the cancers and health problems that follow. This is a health issue for Gulf War veterans as well as those who fought in Iraq. But apparently the cancer rates for the communities that endured the bombings are even worse¹. Children in Fallujah are now suffering cancer at rates higher than ever before, one study showed.

Is this why the clean up for depleted uranium in OU 3 was not included in this Remedial Action Plan, rushed through with NO CEQA document or public disclosure, and now presented as a *fait accompli*?

DTSC claimed the removal plan was approved. Approved by whom? Where is the CEQA documentation? It appears there is none. This doesn't give the public a lot of confidence in DTSC's promises of public disclosure.

Response: *Depleted Uranium (DU) was identified as a contaminant of concern in the Site Wide Remedial Investigation Report and Feasibility Study for OU2 through OU6 in Section 4.1.3 of the draft RAP. DU projectiles were fired in a former test range (Area 57) within OU3. Over the years, rainfall, erosion, and movement of top soil caused small fragments of DU to move to the adjacent Area 14. Several studies were performed to identify the nature and extent of DU contamination. Clean-up of the DU was originally intended to be included in the OU2-OU6 RAP; however, development of the RAP was delayed for nearly two years due to on-going property negotiations. DTSC approved the implementation of the DU clean-up, including transportation routes, in accordance with Section 5.1.3 of the November 2002 Order which requires Whittaker to undertake*

¹ “Document Reveals Military Was Concerned about Gulf War Vets’ Exposure to Depleted Uranium, Mike Ludwig, July 28th 2010

removal actions if, during the course of investigation, DTSC determines that they are necessary

The work plan was reviewed by the County of Los Angeles Public Health Radiation Management Unit and by a DTSC toxicologist. The plan was posted on our public website upon approval. Soil was transported to low level radioactive waste facility in Clive, Utah in accordance with Department of Transportation requirements.

Material presented at the public meeting to discuss the draft Remedial Action Plan (RAP) held at City Hall in July, also indicated that the OU1 clean up was completed. Yet this area has not yet received the final sign off, according to DTSC staff. We object to such a characterization and ask that the RAP make it clear that the final sign off on this area has not yet occurred and state the further steps that must be accomplished to obtain that sign off.

Response: The draft RAP will be revised to clarify the status of the OUI RAP. In March 2010 Whittaker submitted a RACR for the OUI RAP implementation. DTSC issued a letter indicating that while no additional soil excavation was required, additional soil vapor extraction is necessary to address VOC contamination in soil gas.

The vagueness of the grading description in the MND is unacceptable. We urge the City and DTSC to remember condition DS12 required as part of a Court settlement regarding the Porta Bella approval. This condition states that no work on the project can be done until the clean up is completed. Therefore the clean up grading may not be used as a way to begin rough grading for the project now

While the MDN acknowledges that fifteen years have passed since the Porta Bella project approval, and “a significant amount of environmental investigative work has been conducted across the Site” that will probably change what areas are developable, the MDN and RAP state that “flexibility” will be included in the grading plans.²

However, it goes on to say that:

“The incorporation of the Porta Bella Plan grading envelope into this RAP, which the City of Santa Clarita has stated would remain essentially unchanged even under alternative

² “Based upon the findings of those investigations some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy; therefore, the approach outlined in the RAP document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible. These institutional and engineering controls will include: recording of Land Use Covenants or deed restrictions, installation of vapor barriers, passive and mechanical venting systems, engineered cap(s) and surface water diversion measures. Cleanup objectives will be determined with respect to the final grade as set forth in the Porta Bella Plan or other approved plan, and not the current grade.”, MDN page 1

redevelopment plans, ensures that the remedial efforts will render the Site safe for human health and the environment under both the current Site conditions and future anticipated uses and grades.”³

So it appears we cannot be informed as to where the grading will occur. How can impacts be evaluated under such vague circumstances?

Further, since the DTSC has not disclosed what grading will occur where or for what reason, we believe that a finding of no significant impact is not appropriate. Blue line streams or other riparian habitat may be graded.

We believe any such impacts from grading must be disclosed now and not at some later date.

This also stands true for biological surveys. The DTSC is fully aware that the presence of endangered species will require at least a focused EIR and rigorous biological mitigation. Yet surveys for Least Bell’s Vireo and California Gnatcatcher are delayed in spite of the fact that the habitat is appropriate for both of these species.⁴

We request that you address and correct the above issues before approving these documents.

Thank you for your time and attention to our concerns.

⁴“Mitigation Measure BIO-6, Mitigation Monitoring Plan (MMP) shall be developed to ensure effective implementation and enforcement of Mitigation Measures BIO-1 through BIO-5, if applicable, during the implementation of the proposed remedial activities.” MND page 3

Response: Grading for development is not being proposed in the RAP. Tables 2 and 3 of the CEQA Initial Study lists the areas, acreage and volumes of soil targeted for removal for the purpose of Site cleanup only. The Porta Bella Plan “grading envelope” is referenced only in the context of conducting the cleanup efforts so that future occupants/users of the Site are not potentially exposed to residual contamination in shallow soils. As such, the excavation depths listed in the draft RAP are proposed in relation to the final surface elevations referenced in the Porta Bella Plan. Allowances were made for a buffer zone of clean soil throughout the Site that will protect future occupants/users. The Remedial Design document will present detailed information and technical specifications for excavation and remediation. Whittaker is required to obtain grading permits from the City for this work.

Comment from Lawrence Hilton, O’Neil LLP

Comment 37: This office represents Remediation Financial, Inc. (“RFI”), Santa Clarita LLC (“SCLLC”) and Bermite Recovery LLC (“BRLLC”). The purpose of this letter is to

³ *Ibid.*

provide comments on behalf of RFI, SCLLC and BRLLC (hereinafter collectively referred to as “SCLLC”) to the July 12, 2010 Draft Remedial Action Plan for Operable Units 2 through 6, for the former Whittaker-Bermite Facility located in Santa Clarita, California (hereinafter, the “Proposed RAP”).

As set forth in detail below, SCLLC believes that the Proposed RAP generally is well prepared and thorough. However, there are several issues that SCLLC does not support in reference to remedial actions proposed for the former Whittaker-Bermite Facility (hereinafter, the “Site”) which must be addressed before the DTSC can approve the Proposed RAP. Those issues are discussed in the following sections.

1. General Comments.

Whittaker Corporation (“Whittaker”), its consultants, CDM, and the DTSC have done a commendable job summarizing and analyzing the Remedial Investigations conducted at the Site, and SCLLC supports the Remedial Objectives provided in Section 1.2 of the Proposed RAP, specifically, remediation of the Site consistent with unrestricted future use. SCLLC also supports the incorporation of the Porta Bella Plan¹, (¹As that term is defined in Section 1.4 of the Proposed RAP.) into the proposed remedies, and the concept of integrating future redevelopment plans into the proposed remediation, which achieves the important goal of eliminating the risk of any residual contamination at the Site, so that future landowners do not bear any burden related to cleaning up the Site.

That said, there are a number of issues that must be addressed before the Proposed RAP can be approved by DTSC. These issues are discussed below.

2. The Proposed RAP Should Identify The Areas Of The Site That May Be Subject To Restrictions On Future Land Use. (Responded below)

One very important issue that must be addressed in the Proposed RAP is the lack of specificity concerning Whittaker’s position on possible future restrictions on land use. The Proposed RAP provides that some portion of the Site may not be suitable for development without restrictions on future use:

When possible, specific remedial goals that support [the general] objectives are presented in the following sections. As discussed in Section 1, based on the magnitude and extent of chemical impacts in specific areas of the Site, unrestricted land use may not be appropriate for approximately two percent of the entire Site area. These areas would likely be suitable for commercial and recreational land use, or designated as open space.

(Proposed RAP at § 5.1 (emphasis added.)) The Proposed RAP also provides:

[T]he approach outlined in this document allows for flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan as well as the flexibility to apply appropriate institutional and/or engineering controls for

the specific areas of the Site where remediation to unrestricted land use conditions are not technically and/or practically feasible.

(Proposed RAP at § 1.4). SCLLC objects to the notion that unrestricted land use may be compromised. The Proposed RAP does not specify the locations where use might be restricted. However, the RAP provides a schedule of areas that are impacted with deep VOC contamination and are most likely to be affected by restrictions on use. (See Figure 5-2; Table 7-1.) Some of these areas are designated for residential use under the current development plan approved by the City of Santa Clarita.

Whittaker and its consultant, CDM, were able to provide a quantifiable estimate of the portion of the Site to which they may propose future restrictions on use. Whittaker and CDM therefore should be able to provide more information in the RAP to specifically identify the 2% of the Site that they may propose future restrictions on use². (² The Proposed RAP suggests that some of this information may already have been provided to the DTSC. See, e.g., Section 1.3.1: “DTSC has acknowledged that some of the Site areas designated for unrestricted land use under the Porta Bella Plan, may no longer be suitable for unrestricted use even after application of a remedy. . .)

The Proposed RAP also provides insufficient information on the correlation between deep perchlorate or VOC-impacted soils and the surface area that might be impacted. For instance, it is unclear whether a small area of deep VOC-impacted soil might require that use restrictions be placed on a much larger surface area. The Proposed RAP should be corrected to address these issues.

Response: *The draft RAP proposes to cleanup all areas contaminated with VOCs at levels that pose a risk to human health or the environment. Site clean-up decisions are not being made based on anticipated land use restrictions. However, some contamination on the Site may not be able to be cleaned-up to a level that allows for, an unrestricted use designation. These areas may require implementation of a long-term remedy. While the goal is to clean all areas of the site for unrestricted use, this goal may not be reachable in some areas of the Site. The draft RAP will be revised to include a table or figure depicting the areas with the highest probability of requiring a long-term remedy.*

It is not anticipated that any area will be restricted due to remaining deep perchlorate contamination in soil because the draft RAP proposes to eliminate the exposure pathway to humans and surface water. For areas with deep VOC contamination, the surface area that may be subject to land use restrictions will be based on residual contamination levels once cleanup has been done. The exact area affected cannot be determined until the location and configuration of the residual contaminants remaining after implementation of the proposed remedy is characterized. Consequently, the correlation between deep contamination and the affected surface area will not be known until cleanup efforts are completed.

3. The Remedies Provided In The Proposed RAP Should Be Consistent With The Requirements Of The “Imminent And Substantial Endangerment Determination And Order And Remedial Action Order” Dated November 22, 2002.

Another issue that must be addressed is to ensure consistency between the Proposed RAP and the “Imminent And Substantial Endangerment Determination And Order And Remedial Action Order Dated November 22, 2002” (the “Remedial Action Order”). Approval of the Proposed RAP, which in its current form seeks to allow restrictions on future use to substitute for cleanup to residential standards, would be inconsistent with the provisions of the Remedial Action Order which provides, in pertinent part:

The reasonably foreseeable future uses for portions of the Site include residential. Therefore, remedial action objectives for contaminated media in areas intended for residential use shall be developed which are protective of adults and children in a residential exposure scenario.

Response: Please note that the Order was issued to Whittaker prior to the completion of environmental investigations. The full nature and extent of soil, soil gas, and groundwater contamination was not known at the time. The draft RAP takes the investigation results and future land uses into consideration. The proposal to use land use restrictions as part of the selected remedy is not a substitute for implementing cleanup efforts, but as a back-up plan to protect future occupants of the property.

(Remedial Action Order § 5.1.2(b)).

The Remedial Action Order further provides that Whittaker must “Develop remedial action objectives for soil which are protective of adults and children in a residential exposure scenario in areas intended for residential use, as well as ecological receptors” (Remedial Action Order at § 5.2.1(e)).

SCLLC believes that corrective action must be taken before the DTSC can approve the Proposed RAP (or any remedial action plan for the Site) that authorizes the use of restrictions on future land use as a substitute for implementation of cleanup to residential standards.

Further, because the Remedial Action Order is directed to Whittaker, the remedies implemented at the Site should ensure, to the fullest extent possible, that none of the burden of remediation is shifted to future landowners or other third parties. The Proposed RAP should more clearly articulate and implement the goal of achieving a cleanup at the Site that will eliminate the risk of residual contamination at the Site, so that none of the burdens imposed in the Remedial Action Order are shifted to future landowners.

Response: The overall objective of the draft RAP is to clean-up the Site to a level that is protective of human health in a residential setting. However, based on past experience and Site conditions, it appears that there are areas on the site where this may not be possible. Recognizing this reality, the draft RAP includes the alternative of placing land use restrictions on areas that cannot be cleaned to the point of being protective of human health in a residential setting. Once the clean-up process is completed, land use designation will be based on the human health risk assessment of the post clean-up Site

conditions. If cleanup goals are not achievable in a particular area, then the planned land use for that area may need to change and land use restrictions implemented.

4. The Proposed RAP Does Not Provide A Sufficient Mechanism To Ensure Appropriate Determination Of “Technical” Or “Practical” Feasibility Of Proposed Remedies.

As noted, the concepts of “technical” and “practical” feasibility are repeatedly cited in the Proposed RAP as being determinative both of the remedies that actually will be implemented, and of whether restrictions on future land use may be proposed. In addition to the lack of sufficient information to determine the geographic locations where it may be proposed that future land use may be restricted, the Proposed RAP also fails to provide an adequate oversight process to ensure that “technical” and “practical” feasibility standards are appropriately applied.

There are at least two ways in which the Proposed RAP falls short in this regard. First, while the Proposed RAP identifies a presumptive remedy for areas exceeding the risk-based threshold concentrations (RBTCs), there are no provisions for an alternative remedy should the presumptive remedy fail. Instead, the Proposed RAP defaults immediately to restrictions on future land use. Section 1.3.1 is one example:

For areas exceeding the RBTCs for the anticipated land use, it is presumed that SVE will be the likely remedy. If residual VOC concentrations persist and exceed the applicable RBTCs after SVE operations, then institutional and/or engineered controls may be applied under non-residential use scenarios to mitigate the residual risks.

(Proposed RAP at §1.3.1). The RAP should provide for implementation of alternative remedies to attain the goal of unrestricted land use rather than defaulting to use restrictions and institutional controls.

The second, and related, issue is that the Proposed RAP does not sufficiently provide for an independent determination of what is “technically” or “practically” infeasible. SCLLC does not doubt the motives of Whittaker or the competence of its preeminent consultants. However, as a matter of policy the RAP should not allow the entities who are responsible for funding implementation of the remedies to make the determination of whether the remedies are “technically” or “practically” feasible. That determination should be made by the DTSC after giving public notice and opportunity for comment. The Proposed RAP should be amended to provide for such oversight.

Response: *DTSC is the agency responsible for oversight of the investigation and clean-up of the contamination at the site. A detailed analysis of the alternatives considered is included in the Site-Wide Feasibility Study Operable Units 2 through 6(CDM, 2007). Technical feasibility refers to a technology’s ability to clean-up a contaminant in a particular media (air, soil, water), under the current site conditions. For example, practical feasibility refers to a technology’s use based on cost benefit analysis, foreseeable land use, and determining whether a cleanup technology is technically and practically feasible.*

DTSC provided oversight of the preparation of the feasibility study including treatability studies to ensure proposed remedies are technically appropriate for the site conditions. The proposed options consider the potential for residual contamination, and the proposed land use.

In addition to the operation of Soil Vapor Extraction (SVE) systems to clean-up VOC contamination, the draft RAP also proposes excavation, and on-site bio-remediation, and/or off-site transportation of VOC contaminated soils before defaulting to a long-term remedy. The draft RAP will be revised to clarify that DTSC will make the final determination on the technical and practicable performance of a cleanup technology. DTSC will provide continuous updates on the status of the cleanup to stakeholders and the community.

5. To The Extent Any Restrictions Are Imposed On Future Land Use, The Proposed RAP Should Ensure Such Restrictions Are Minimized.

The Proposed RAP should be revised to ensure that if the specified remedies and all reasonable alternative remedies are not sufficient to clean portions of the Site to a level allowing for unrestricted use, the affected area is remediated to the highest possible use and not at the expense of or resulting in a change in the approved development plan.

As currently drafted, the Proposed RAP proposes that unspecified “institutional and/or engineering controls” be applied to “specific areas of the Site where remediation to unrestricted land use conditions [is] not technically and/or practically feasible.” Proposed RAP at § 1.4.1. The Proposed RAP should clearly provide that such areas be remediated to allow for the highest possible use, e.g., commercial use, even if residential use standards cannot be attained. That is, the Proposed RAP should ensure that areas where remediation to unrestricted land use standards is not feasible do not default to open space or other highly-restrictive uses, but rather to the least restrictive use that is attainable.

In addition, the Proposed RAP makes general references to providing “flexibility to incorporate some modifications to the proposed land uses as described in the Porta Bella Plan” (see Proposed RAP at § 1.4), but provides little specificity on how that flexibility is to be applied and does not provide for consent from SCLLC. For instance, as an alternative to imposing restrictions on use, other means such as realignment of proposed roadways at the Site could be employed to address areas where remediation is particularly challenging. The Proposed RAP should specifically provide for implementation of all possible alternatives before resorting to use restrictions.

SCLLC respectfully requests that the DTSC ensure that the issues discussed in this letter be addressed before approving the Proposed RAP.

Response: *As indicated previously, the goal is to clean the entire site for unrestricted use regardless of any changes to proposed land uses. For problematic areas (soils), DTSC will ensure the most conservative standard is pursued regardless of proposed land use.*

DTSC and Whittaker will continuously consult with the property owner and the City throughout the implementation of the RAP regarding any proposed changes to the land use and the infrastructure of the area. If the property owner or the City decides to change the land use or infrastructure of an area that requires restrictions because of residual contamination, DTSC will conduct an evaluation and take actions necessary to ensure protection of human health and the environment.

Comment from Neil Selman, Selman Breitman LLP

Comment 38: This office represents the interests of Steadfast Santa Clarita Holdings, LLC, (“SSCH”) holder of a significant and senior lien interest in the subject property. Therefore, the property secures a debt obligation owed to SSCH in excess of \$34 million and, it is entirely possible that at some point in the future, SSCH could actually become the owner of the subject property. As such, SSCH has a legitimate and significant interest in the quality and the scope of the clean-up regarding the subject property.

Obviously, the clean-up of a contaminated site, such as the Bermite site, is a large and complex matter, and we are grateful to all of the participants for all of the work that has gone into the supervision of the clean-up process thus far. However, SSCH has significant concerns about the plan proposed in the Site-Wide RAP.

We have read the comments made on behalf of Remediation Financial Inc., Santa Clarita LLC, and Bermite Recovery through their lawyers, O’Neill LLP, which was submitted to the DTSC by e-mail on August 19, 2010. Additionally, we have also reviewed comments made by the City of Santa Clarita by letter dated August 18, 2010 to Mr. Diaz of the DTSC.

Rather than rehash the issues discussed in those letters, SSCH would like to inform the DTSC that it shares the objections and concerns stated in the correspondence sent on behalf of the RFI parties and the City of Santa Clarita. We believe the concerns stated in these letters reflect significant issues which have not been properly addressed in the Site-Wide RAP and as a significantly concerned party, SSCH respectfully requests that the DTSC ensures that the issues discussed in the above-referenced letters be addressed before the proposed RAP is actually approved. We do not believe the Site-Wide RAP is sufficiently detailed and we believe it does not provide reasonable assurances that the remediation program required to safe guard the interests of all necessary parties can be achieved.

Response: Thank you for your comment. Please see DTSC responses to Comments #37 and # 39 submitted on behalf of the RFI parties and the City of Santa Clarita respectively.

Comment from Kenneth Pulskamp, City of Santa Clarita

Comment 39: On behalf of the City of Santa Clarita, thank you for the opportunity to review the Final Draft Remedial Action Plan for Operable Unit (OU) 2 through OU6 (“Site-Wide RAP”, 12 July 2010) for the former Whittaker-Bermite facility located in our city. We recognize that cleaning up the environmental contamination at this site is a large

and complex problem; however, we have significant concerns about the plan proposed in the Site-Wide RAP. Our comments are set forth below.

General Comments

The soil remediation plan for OU2 through OU6 is generally the same strategy that was implemented at OU1 with a few modifications.¹ (¹ The Site-Wide RAP states: “For the purposes of this discussion, it is assumed that the remedial process will essentially be identical to the OU1 operations...”(p.7-1)). The plan calls for a combination of excavation and ex-situ biological treatment for shallow perchlorate-impacted soils and in-situ soil vapor extraction (SVE) for volatile organic compounds (VOCs). There is no selected remedy, however, for deep soil (>100 feet below current ground surface) contaminated with VOCs. Proposed remedies for the Saugus Aquifer, Alluvial Aquifer and the perched aquifers are deferred to a later report. The ongoing absence of a decision with respect to soils below 10 feet is not a legally adequate remedial decision, and the decision to postpone consideration of this issue to a later document renders the RAP legally deficient and will also preclude adequate remediation of the site and preclude adequate analysis of the remedy under the California Environmental Quality Act (CEQA).

We do support the fact that this draft of Site-Wide RAP incorporates the City’s request that the depth of perchlorate excavations and treatment of VOCs by SVE is to be measured from the post-grading land surface and not the current topography of the site. The City feels this is an important revision because future redevelopment efforts will inevitably entail a massive amount of grading. In addition, the site will require substantial geotechnical work such as soil reworking and compaction in order to be suitable for redevelopment. Because shallow soil cleanup standards are largely based on human health risk due to potential exposure to contaminated soil, the health-based cleanup standards should apply to the soil at the ground surface that people will actually be living and working on in the future, not the ground surface that exists before development.

Response: The remedy for groundwater and deep soil contamination will be presented in the OU7 RAP and associated CEQA documents. Following completion of the proposed OU2-6 RAP, a post-remedy risk assessment will be performed to ensure that the cleanup objectives are achieved for the proposed land use of the site. If additional grading is planned for future developments, the property owner is responsible for choosing appropriate fill materials that meet regulatory requirements.

Specific Comments

1) ***Cleaning up the site to meet unrestricted land use criteria.*** The Site-Wide RAP states that even after remediation:

“Based on the magnitude and extent of chemical impacts in certain remaining areas of the Site, it is likely that unrestricted land use may not be appropriate for approximately 2 percent of the Site”² (² Site-Wide RAP, p.1-4,1-5.)

Two percent of the site represents approximately 20 acres. The Site-Wide RAP does not specify which 20 acres are not to be cleaned up to unrestricted land use standards and we are concerned that this arrangement is not consistent with land uses envisioned for this property under the Porta Bella Specific Plan. We recognize that conditions such as subsurface heterogeneity and the physical and chemical properties of the contaminants can create situations at certain sites in which cleanup standards cannot feasibly be met. However, it is our understanding that DTSC normally requires a responsible party to attempt cleanup of a site to standards consistent with actual or proposed land uses before allowing less stringent cleanup goals. It is exceptionally premature to allow, or even to suggest, that any portion of the site will not be remediated to unrestricted land uses. Any such decision must be made with specificity, full CEQA review, and supported by substantial evidence in the record. Given the absence of any of this information, the suggestion that the site cannot be remediated to unrestricted land uses should be deleted, particularly since soil remediation at OU2-OU6 has not even been attempted.

Response: The draft RAP proposes to cleanup all areas contaminated with VOCs at levels that pose a risk to human health or the environment. Site clean-up decisions are not being made based on anticipated land use restrictions. However, some contamination on the Site may not be able to be cleaned-up to a level that allows for, an unrestricted use designation. These areas may require implementation of a long-term remedy. While the goal is to clean all areas of the site for unrestricted use, this goal may not be reachable in some areas of the Site. The draft RAP will be revised to include a table or figure depicting the areas with the highest probability of requiring a long-term remedy.

If Whittaker cannot clean up the site to allow unrestricted land use due to technical reasons, it must at least clean up the site to be compatible with the approved land use plan. The Porta Bella Specific Plan is an approved plan for this site and it cannot be disregarded. The Specific Plan serves as the zoning for this site; the Plan itself provides the standards that must be met for re-use in each area of the site. Accordingly, we believe the Site-Wide RAP should be designed to clean up the site to standards consistent with the configuration of residential, commercial and open space land uses specified in the Porta Bella Specific Plan or with an alternative plan, if a new plan is approved prior to remediation.

In addition, the Unilateral Order issued by DTSC against Whittaker states: “The reasonably foreseeable future uses for portions of the Site include residential. Therefore, remedial action objectives for contaminated media in areas intended for residential use shall be developed which are protective of adults and children in a residential exposure scenario.” (Imminent and Substantial Endangerment Determination and Order and Remedial Action Order, §5.1.2(b)).

Accordingly, the RAP should clearly state that the default objective of the remediation program is to clean up the entire site sufficiently to meet unrestricted land use criteria (preferred by the City) or, at a minimum, to be fully compatible with the land uses specified in the Porta Bella Specific Plan. Other cleanup standards would apply only (a) if a new development plan is approved before the remediation is complete or (b) if the

remediation program proves unable to achieve unrestricted land use standards in spite of Whittaker's best efforts.

Response: The objective of the draft RAP is to clean up the property for unrestricted use. The draft RAP will be revised to clearly state this objective.

2) Depth of soil remediation. The Site-Wide RAP calls for cleanup of perchlorate-contaminated soil to a depth of 10-feet, but no deeper. There are a number of foreseeable redevelopment activities that may encounter the deeper contaminated soil. Examples include installation of a swimming pool on a residential lot digging of utility trenches or soil reworking for geotechnical purposes. To account for these issues, we believe perchlorate-contaminated soil should be cleaned up to a depth of 20 feet and a comprehensive soil management plan must be developed to account for future activities at the site that may entail digging deeper than 20 feet.

Response: Consistent with DTSC guidance and protocols for site cleanups, the draft RAP proposes to eliminate the soil contamination within the upper ten feet of soil. The draft RAP specifically calls for soil clean-up in excess of 10 feet below ground surface for over half of the proposed remediation areas, including nine excavations to 30 feet depth or greater, and six excavations to 40 feet depth or greater. Some of the expanded depths are due to meeting the Northern Alluvium soil screening level (SSL) for protection of the Northern Alluvium aquifer, but most are the result of accounting for the final surface elevations of the Porta Bella Plan. The draft RAP also proposes retaining flexibility for additional clean-up that may be needed to accommodate future development plans. This flexibility includes consultation between the DTSC, Whittaker, the property owner, and the developer during implementation of the RAP and RD to consider revisions to the excavation depths (deeper or shallower), provided they are still protective of human health and the environment. A soils management plan will be prepared during development of the RD to address any changes to the development plan that may occur during the RAP/RD implementation.

3) Meeting cleanup targets for construction workers. The remediation program should ensure that all soil on the site (not just the upper 10 or 20 feet) meets the risk-based cleanup target for the construction worker scenario. Pockets of soil that do not meet the cleanup target for construction workers could render the site undevelopable or, at a minimum, trigger a need for additional soil remediation. To avoid hamstringing future redevelopment activities, all soil at the site (regardless of depth) should meet the cleanup criteria for construction workers.

Response: There is one location (Area 14) onsite where perchlorate contamination levels in soil exceed the construction worker RBTC of 200,000 ug/kg (14-GP-510A – 316,000 ug/kg @ 40'). Area 14 is a likely fill area, so there is little chance of exposure. PCE concentrations exceed the construction worker RBTC of 80,000 ug/kg at one location (14-GP-510/510A) (3,100,000 ug/kg @ 10', 1,900,000 @ 20', 1,000,000 ug/kg @ 40', and 130,000 ug/kg @ 80'). SVE operations are

expected to “knock down” the PCE concentrations well below the RBTC. DTSC fully expects that the clean-up process will reduce contaminant levels to acceptable standards established for construction workers following completion of the RAP.

4) Flexibility. We believe the Site-Wide RAP should clarify that the flexibility discussed in the RAP refers to a wish to coordinate the remediation program with future redevelopment, not for other purposes. It should be noted that implementing this flexibility may decrease but it also may increase remediation obligations.

Response: *Your comment is noted and the draft RAP will be revised accordingly. Please note that Section 5.16 of the Unilateral Order states that DTSC may specify additions, modifications, and revisions to the RD as it deems necessary, during implementation of the final RAP and RD.*

5) Future grading plan. Please revise the statement in Section 1.4 of the Site-Wide RAP that asserts the City of Santa Clara has stated that the Porta Bella Specific Plan grading envelope would remain essentially unchanged even under alternative redevelopment plans. While we agree the ultimate grading envelope is likely to be similar to the Porta Bella Specific Plan, the City cannot claim prior knowledge of the unarticulated plans of an unknown developer.

Response: *The statement will be revised accordingly.*

6) Potential for additional risk assessment. The Site-Wide RAP suggests that more risk-assessment may still be done. This, of course, would change the numerical cleanup targets at some unspecified future time. We believe the Site-Wide RAP should clearly state the numerical cleanup targets. It is unclear how the City or DTSC or any other interested party can evaluate the adequacy of a RAP if the cleanup targets are not known. If Whittaker envisions doing a more thorough risk assessment, it may be necessary to put the RAP on hold pending completion of the risk assessment. Alternatively, if the cleanup targets are to be changed, there must be a clear procedure for public and environment review of these potential changes to the remediation program.

Response: *The RBTCs are not meant to be the final cleanup goals. DTSC views attainment of cleanup at this Site a two-step process. First, the RBTCs are used to establish clean-up goals, and to support evaluation of clean-up alternatives. Following completion of the RAP, a post clean-up risk assessment will be conducted to confirm that Site cleanup goals are met, and that there is no current risk to human health and the environment for the specified land use scenarios. RBTCs were derived for individual chemicals; and therefore, do not account for cumulative effects from multiple chemicals present at the site, which need to be addressed in the post-cleanup risk assessment. This two-step process is a standard approach used by DTSC to ensure protection of human health and the environment.*

7) Cleanup standard for soil vapor. The Site-Wide RAP notes that there are over 30 areas with VOC vapor excess cancer risks of 10^{-4} or greater (p. 5-10). This statement leads

the City to question what risk-based standard is being proposed for VACs in vapor, since Section 5.2.1 states RBTCs are based on 10^{-6} cancer risk. This apparent discrepancy should be corrected or Whittaker should explain why it is valid to use a soil gas cleanup threshold 100 times higher than the soil cleanup threshold.

Response: The discussion on Page 5-10 is to highlight the areas with the highest VOC vapor cancer risks, and does not imply that the RAP will address only those areas. All areas where VOC concentrations exceed the soil vapor RBTCs will be evaluated for cleanup.

8) **Deep soil and perched groundwater.** The Site-Wide RAP should proposed guidelines for measuring success or failure of its pilot programs for deep soil and perched water and inform the reader under what conditions it would propose not to remediate these media. If not cleaning up deep soil and perched groundwater remains an option, the revised Site-Wide RAP should analyze the implications on the cost, duration and probability of achieving cleanup goals for the Saugus groundwater remediation program.

In summary, the Site-Wide RAP is not sufficiently detailed and it does not provide a reasonable assurance that the remediation program envisioned under this plan can achieve cleanup standards required to return this site to productive use. At a minimum the Site-Wide RAP should explain what it means by “flexibility” for integrating remediation with redevelopment and it should articulate clear pathways forward for two scenarios: (1) if a developer emerges and (2) if a developer *does not* emerge during the time-frame of the soil remediation program.

We appreciate your efforts in overseeing the investigation and remediation of the site, and we welcome the opportunity to discuss these comments further with you in the near future.

Response: A clean-up plan for perchlorate in the deep soil and perched groundwater will be proposed in the draft RAP for groundwater (OU7) which is currently in development. Perchlorate contamination is a threat to groundwater, but is not currently a threat to human health. The OU7 groundwater clean-up plan will consist of interceptor wells that will remove contaminated groundwater and treat it prior to the groundwater migrating off-site. Whittaker will perform pilot tests to determine if it is possible to remove the contaminants prior to it migrating into the regional groundwater aquifer. Criteria to determine whether on-site methods are feasible have not been determined. However, it is important to note that if the on-site methods are not successful, then this does not mean that deep soil and perched groundwater contamination will not be cleaned-up. The clean-up plan in development (OU7 RAP) will propose a system that is able to remove the contamination in deep soil and groundwater.

Comment from: J. Rickey

The street name Wiley Canyon Road should continue from Via Pacifica to the end of the Whittaker-Bermite property, effectively eliminating the ‘Via Princessa’ portion of roadway. If the Porta Bella land project goes through and connects to the other ‘Via Princessa’ roadway, then

a more appropriate name change can be made. The only addressed property affected would be Circle J Park.

Response: Your comment will be forwarded to the City.

1 LOS ANGELES COUNTY
2 WHITTAKER-BERMITE PROJECT
3 JOSE DIAZ, PROJECT MANAGER

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6 Public Hearing in the Matter of:)
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7 DRAFT REMEDIAL ACTION PLAN FOR)
 OPERABLE UNITS 2 THROUGH 6 SOILS)
8 WHITTAKER-BERMITE PROJECT)
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15 TRANSCRIPT OF PROCEEDINGS
16 Santa Clarita, California
17 Thursday, July 29, 2010

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22 Reported by:
23 ELIZABETH KOZAKOWSKI
CSR No. 13451

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Job No.:
25 B5292NCO

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1 LOS ANGELES COUNTY
2 WHITTAKER-BERMITE PROJECT
3 JOSE DIAZ, PROJECT MANAGER

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6 Public Hearing in the Matter of:)
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7 DRAFT REMEDIAL ACTION PLAN FOR)
OPERABLE UNITS 2 THROUGH 6 SOILS)
8 WHITTAKER-BERMITE PROJECT)
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15 TRANSCRIPT PROCEEDINGS, taken at
16 Santa Clarita City Hall, Council Chambers,
17 23920 Valencia Boulevard, Santa Clarita,
18 California, commencing at 7:05 p.m. on Thursday,
19 July 29, 2010, reported by ELIZABETH KOZAKOWSKI,

file:///C:/Documents%20and%20Settings/JDiaz/Desktop/Public%20Comments072910.txt[11/29/2010 11:57:30 AM]

20 CSR No. 13451, a Certified Shorthand Reporter
21 in and for the State of California.
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1 APPEARANCES:

2

3 PUBLIC COMMENTS: PAGE

4 Lynne Plambeck 24 6

5 Valerie Thomas 40 11
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10 EXHIBITS

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11 (None)

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1 Santa Clarita, California, Thursday, July 29, 2010

2 7:05 p.m.

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5 MS. LA DUKE: It is July 29th, it is 7:05 p.m.

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6 And again, I want to remind you that the
7 comments we're taking tonight is specifically for the
8 draft RAP for OUs two through six. So if you guys have
9 any questions or comments about any other part of this
10 site, we ask that maybe you hold those questions until
11 the end and then we'll be happy to answer any of those
12 questions.

13 What I need to do, since we do have a court
14 reporter here, we really want to make sure that we get
15 all of your comments, so I have a little handheld mic
16 here and I'm going to go around to each one of you so
17 if you just want to raise your hand, I'll come to each
18 of you. And if you will state and spell your first and
19 last names, so we can get that recorded. And then make
20 sure you talk as slowly and clearly as possible, so she
21 can get down all the information. And we ask that you
22 speak one person at a time, so we can record who is
23 talking and make sure we get your full comment
24 accurately and then please wait for the full response
25 before we move on to the next person.

6

1 AUDIENCE MEMBER: Before you start that, you told us

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2 during the presentation that we should wait until after the
3 presentation to ask questions?

4 MS. LA DUKE: Yes. We are going to allow the questions
5 during --

6 AUDIENCE MEMBER: I would like to ask questions first
7 before I make comments.

8 MS. LA DUKE: That's fine.
9 We just want to make sure we get all the
10 questions recorded too, so that if there is anything we
11 need to follow up on, we have it recorded here, that's
12 going to help us too.

13 AUDIENCE MEMBER: Okay. But are they going to, as I
14 ask a question, respond to it?

15 MS. LA DUKE: Yes. Yes, we are.

16 Okay. Is there any other questions before we
17 get started?

18 Let me grab my mic and we'll be ready here.

19 Okay. Let me come back here and we'll start
20 with Lynne.

21 MS. PLAMBECK: Okay. My name is Lynne Plambeck, I'm
22 with Santa Clarita Organization for Planning and the
23 Environment.

24 And I would like to -- my first question is,
25 why did you decide to do a mitigated negative

1 declaration instead of a BIR on this?

2 My other question is, would you -- I see in
3 the mailer that you sent out that you took a lot of the
4 depleted uranium off-site; would you please explain how
5 many truckloads of uranium were moved off-site and
6 where that depleted uranium went and whether you've
7 tested soil since that and you're sure there is no more
8 depleted uranium, because it seemed like one person was
9 saying it's gone and now -- there was a present tense
10 used in -- to refer to depleted uranium, so I'm a
11 little bit unsure as to where it exists -- whether it
12 still exists on-site or not.

13 Those are my two beginning questions. Thank
14 you.

15 MR. DIAZ: Okay. The first question regarding the
16 mitigated negative declaration. Essentially the results of
17 the initial study indicated that we could do a mitigated
18 negative declaration.

19 MS. PLAMBECK: Which results exactly?

20 I mean, why -- I mean, you didn't think there
21 was enough dust being generated or -- there were no
22 significant impacts and -- I haven't read it, so that's
23 why I'm just asking you why you chose that rather than

24 the other.

25 MR. DIAZ: Correct. There are some impacts, but

8

1 they're all temporary and they all can be mitigated, correct.

2 With the dust -- primarily dust is the issue. Because noise,

3 obviously, most of us, you know, most of our work is going to

4 be done well within the property boundaries. If I look at

5 all the -- yes, and just recalling all the sections of the

6 initial study, yes, there was a few of them where we had

7 significant impacts that could be mitigated.

8 MS. PLAMBECK: What were the significant impacts?

9 MR. DIAZ: Well, I have to go by -- one by one where I

10 can respond to that in a written comment. But it was the

11 air, it was the dust primarily. There was -- I mean, just

12 the number of the -- those were the ones that we can mitigate

13 on-site. And because they were temporary in nature, you

14 know, we didn't feel that they caused a significant impact.

15 I can send you a --

16 MS. PLAMBECK: I'm going to go read this online.

17 MR. DIAZ: Okay.

18 MS. PLAMBECK: But I just -- you know, I thought for

19 the benefit of the rest of the audience, that it would be

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20 helpful to explain why you chose mitigated, because it seems
21 like a -- really lot of grading and there's going to be a lot
22 of things moving around, seems like there is a lot of impacts
23 on the site and I just thought it would be helpful to
24 everyone to hear this.
25 MR. DIAZ: You're correct. And most of the, like I

9

1 said, because the grading is going to take place in, you
2 know, in such a span of time and, you know, very isolated
3 areas and we didn't -- we didn't, you know, according to
4 initial studies, we felt that a mitigated negative
5 declaration was adequate.

6 Then regarding the depleted uranium. Yes, in
7 OU3 we mentioned the -- you know, back in the past they
8 operated the -- a gun that they were testing ammunition
9 coated with depleted uranium. They were permitted by
10 the Department of Health -- Department of Public
11 Health, radiological health branch. They operated that
12 permit for a number of years. They decided not to
13 operate the gun and then they proceeded to demolish the
14 building and meet all the requirements for DPH;

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15 however, there was still -- after the demolition of the
16 building, the catcher building, what they call a
17 catcher building, there was still seen some fragments
18 around in the soils surrounding the building.

19 So since 1994, they've done a few surveys,
20 but it never got to the point where we were ready to
21 really get into this and remove it. Finally this year,
22 we had a very good survey, they had a good estimate, as
23 part of the -- again, as part of the ongoing
24 investigation, it's an internal removal, it was no --
25 by no means intended to be the final remedy for the

10

1 area. They prepare a work plan. Department of Public
2 Health reviewed the work plan, we reviewed the work
3 plan, L.A. County reviewed the work plan, and we all
4 felt like it was appropriate to remove the depleted
5 uranium. Energy Solutions was the contractor, that was
6 hired by Whittaker. And Energy Solutions happens to
7 own the Utah facility in Clyde, Utah, where they accept
8 low-level radioactive material. That's where 240
9 truckloads of soil dotted with -- with depleted uranium
10 in -- if -- that's where it was shipped off.

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11 Again, it was shipped off --

12 MS. PLAMBECK: Excuse me. How big were the trucks,

13 how many cubic yards?

14 MR. DIAZ: About 4200 cubic yards. So that's --

15 MS. PLAMBECK: Not 4200 for each truck, 4200 cubic

16 yards total?

17 MR. DIAZ: 4200 cubic yards were shipped off to Clyde,

18 Utah.

19 Now, we're in the process -- they -- after

20 they completed the removal, scraping of the top, in

21 some areas it was -- there was a berm, it was about six

22 feet, eight feet tall, so they removed that berm. And

23 in other areas they just scraped the top foot, in some

24 areas two feet at the most of soil that was in the

25 drainage that -- where we have spotted some -- some

11

1 small specs of DU.

2 So that's stuff -- once they completed the

3 removal, they went back and did a complete survey to

4 find out -- you know, they're following their -- all

5 these steps that DPH puts on them.

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6 There was -- the Energy Solutions has a
7 radiological health license that they have to comply
8 with and they have all these requirements that they
9 have to comply with. After they did removal, they did
10 a survey, final status survey. They have not submitted
11 that report, so we cannot say that the removal is
12 complete at this time.

13 MS. LA DUKE: Okay. Does somebody else have a
14 question?

15 MS. THOMAS: My name is Valerie Thomas. And I'd like
16 to know how this cleanup is funded. Because frankly, none of
17 the entities involved appear to be in great financial shape
18 for paying you.

19 MR. DIAZ: Actually, the cleanup -- well, DTSC
20 oversight, they -- Whittaker -- we send the bills directly to
21 Whittaker and that's -- we're getting our bills paid.

22 MS. THOMAS: So far.

23 MR. DIAZ: That's -- that's where -- you know, that's
24 all we know at this point. If we have to take extra steps to
25 get our bills, there's a way of going after -- after them.

1 MS. THOMAS: Right. Because I know RFI's in

2 bankruptcy. AIG certainly isn't in great financial shape.

3 And this is going to be a long, drawn-out process. Frankly,

4 I would like some assurance that it's going to continue.

5 MR. DIAZ: This will continue and the sooner the better

6 that we get going and -- and for that reason, that's why

7 we're here to try to expedite as much of the cleanup as we

8 can.

9 MR. LARDIERE: Okay. I'm Eric Lardiere, I'm president

10 of Whittaker. Well over \$100 million has been spent on this

11 site so far. It will continue. AIG -- the insurance end of

12 AIG is not in poor shape. And ultimately, these insurance

13 companies will recover from the Department of Defense and are

14 in the process of doing. So -- and Whittaker Corporation is

15 still a viable entity, we're in business and we make money.

16 So to the extent there is any concern with the community

17 about this site, there should be none.

18 MS. LA DUKE: Okay.

19 MR. STRICKLAND: My name is Paul Strickland,

20 S-t-r-i-c-k-l-a-n-d.

21 I have a question -- I have several

22 questions, I hope that I can skip through the pages and

23 find them.

24 On page 15. 15, when you were talking about

25 the Contaminant Specific Treatment and you were talking

1 about the second one, soils contaminated, will -- you
2 talked about -- I want to know, will we be notified --
3 you said that some of that may be treated on -- on --
4 off-site. Will we be notified where it goes and when
5 it goes?

6 MR. DIAZ: Well, if it's treated on-site, there will be
7 some pads that will be built within the property and it will
8 just be --

9 MR. STRICKLAND: I'm talking about off-site.

10 MR. DIAZ: If it's shipped off-site, they will prepare
11 a transportation plan and in the transportation plan it will
12 tell us, how many truckloads are going to go out, how many
13 per day and the route that they will take. And --

14 MR. STRICKLAND: Where will they end?

15 MR. DIAZ: Most likely if it's a chemical -- if it's a
16 chemical that Kettleman, a State of California facility can
17 take, most likely they'll take it, you know, they'll send it
18 there. As far as I know, Kettleman is still accepting
19 waste with -- you know, I would have to -- obviously wherever
20 it goes has to be a licensed facility and that will be
21 included in the transportation plan.

22 MR. STRICKLAND: What happens to the treatment pads
23 after they've been worked on?

24 MR. DIAZ: After -- well, first of all, the treatment
25 pad that was built on OU1, it was built in a clean area.

14

1 Okay. So after they demolish the treatment pad, you know,
2 when we're done with the cleanup, hopefully they'll be -- you
3 know, they have to sample below it to see if it's clean.

4 MR. STRICKLAND: How is it treated, with what is it
5 treated?

6 MR. DIAZ: The perchlorate-contaminated soil is
7 treated -- they tried a combination of glycerin, it's just
8 essentially a sugar and diamonophosphate and they tried other
9 bacteria that they -- different soils have retracted
10 differently, so they tried different combination of that.

11 So essentially if you recall that photo where
12 they have all the stockpiles on the -- the -- the
13 hopper, what they call a hopper, that's where they add
14 the magnets -- the amendments and it comes out of some
15 mud and then it gets treated in the bags or in the
16 cells.

17 MR. STRICKLAND: Well, then a follow-up on that, is it
18 possible that -- that anything that they're using to treat it
19 with, could that combination of -- of chemicals, could that

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20 cause any potential problems?

21 MR. DIAZ: No. Because the -- what it's doing to the
22 perchlorate molecules, essentially destroying it. It's
23 essentially -- it's like an electron -- if you're getting
24 down to the chemistry, again, I can have John explain the
25 actual process.

15

1 John, do you want to explain that?

2 MR. NAGINIS: Well, what the amendments are, what they
3 do, is they take the soil and they mix it with the amendments
4 which are basically food and nutrients for the bugs off the
5 micros in the soil. And so they get the micros with all this
6 food and so they're growing like crazy and then they put them
7 in a -- in a -- within an environment where there is -- where
8 there is -- there is no oxygen. So the bacteria destroy the
9 perchlorate to get at the oxygen that's in the perchlorate.
10 Because perchlorate is an oxygen molecule surrounded by
11 chlorine molecules. So they go -- they split off the
12 chlorine molecules to get at the oxygen and that destroys the
13 perchlorate. And then -- unfortunately for the bugs, then
14 they die because they don't have anything else to eat, so --

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15 MR. STRICKLAND: So when you say that that's a very
16 water soluble, what does that actually mean?

17 MR. NAGINIS: Okay. Perchlorate -- if you think of
18 table salt, which is sodium and chlorine together, and when
19 you put that in water, the sodium and the chlorine come apart
20 and they float off through the water. I mean, you've all
21 seen salt dissolve in a cup of warm water. Well, perchlorate
22 is usually attached to a metal, like aluminum or sodium, when
23 it's used -- you know, for rocket fuel or whatever. And so
24 once it hits water, that metal, that sodium or aluminum,
25 separates and that sticks to soil pretty good. But the

16

1 perchlorate doesn't stick to soil very good and it just
2 floats around and wherever the water goes, it just carries
3 it -- carries it along with it. So that's why perchlorate,
4 once it hits water and it separates, it can go just as far as
5 the water goes.

6 MR. STRICKLAND: Okay. Thank you.

7 Jose, I have another question for you. And
8 that is, on -- when you were going through those
9 tables, you were saying that most of it would not have
10 to be that you -- taken off-site, but you were

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11 describing certain things that might have to be taken
12 off-site. And then at the very end while you were
13 closing up in the last page there, you said that
14 nothing, probably nothing would have to go off-site.
15 So I thought that was a bit contradictory and I didn't
16 understand.

17 MR. DIAZ: Well, in the table I was talking about
18 it was -- I believe it's slide 19. I'm going to get the
19 presentation up again in a minute. I'm going to have to do
20 it from the other side.

21 MR. STRICKLAND: 209, is what you were talking about
22 was the number. Estimated off-site disposal volume and
23 then you said, Well, it didn't look -- we may not send any
24 off-site at that point. The very last item page 19.

25 AUDIENCE MEMBER: Did you say the off-site location

17

1 is Kettleman City?

2 MR. DIAZ: The Kettleman -- the Kettleman Waste
3 Management facility.

4 AUDIENCE MEMBER: Where is that?

5 MR. DIAZ: In Kettleman City, close to Kettleman City.

6 It's been in the news.

7 MR. STRICKLAND: There it is, the last number, yeah.

8 MR. DIAZ: Yes. That's the estimate what we think

9 is going to go off-site. That's an estimate again.

10 MR. STRICKLAND: All right. Then just a bookkeeping

11 item. There was nothing back there for e-mails, it only

12 said telephone numbers, so --

13 AUDIENCE MEMBER: On the comment form, it's on there.

14 MR. STRICKLAND: But when you're signing in, the other

15 form just says -- put your address and everything -- okay.

16 Thank you very much.

17 MS. LA DUKE: Okay. Is there any other questions or

18 comments?

19 MS. BONA: Glenda Bona, G-l-e-n-d-a, B-o-n-a. I'm

20 here tonight as a representative of the Whittaker-Bermite

21 Citizens Advisory Group.

22 Recently we have had several meetings and

23 we've been pleased to see a broad participation and a

24 great cross-section of both community members and also

25 stakeholders. And I'm here tonight to make you aware

1 of our recently redefined vision, mission, and goals.

2 Our vision is to create a future where all
3 residents and users of the soil, air, and water will
4 find a clean, safe, accessible and healthy environment
5 for living, working, and for recreation, both now and
6 in the future.

7 Our mission is to provide outreach and
8 education to the community and to also give them the
9 opportunity to review the environmental response
10 actions that are taken by the Department of Toxic
11 Substance Control.

12 Our mission is also to provide a direct line
13 of communication between the community and the
14 regulators who are involved in the oversight. And
15 also, to identify the community issues and concerns and
16 allow them to be heard and considered before final
17 decisions are made by DTSC staff and other regulators.

18 Our goal is to monitor the cleanup of any
19 future development plans for this property and to
20 ensure that regulatory agency's monitoring the clean
21 up, provide oversight that protects the health and also
22 the safety of our community.

23 Some of our current concerns include,
24 compliance with the imminent and substantial
25 endangerment determination. And also order and

1 remedial action order and with the DC -- or the DS12 of
2 the development agreement. We're especially concerned
3 that the entire site be completely cleaned and cleared
4 by the California EPA and the DTSC before any kind of
5 construction begins.

6 Thank you and we look forward to working with
7 you.

8 MS. NOLTENEYER: Carmillis, that's C-a-r-m-i-l-l-i-s,
9 Nolteneyer, N-o-l-t-e-n-e-y-e-r.

10 I have concerns with regard to the depleted
11 uranium also. I'm questioning why it was moved prior
12 to the public hearing and why it dropped off all the
13 charts as far as being listed as being a contaminant on
14 OU3. I feel that until we have a final report on that
15 movement and be checking that it is complete, that it
16 should have been listed on OU3 as a contaminant of
17 concern and I would like to see that added. And we
18 were a little upset that this was done and moved
19 through the city streets prior to actually having a
20 public comment with regard to it. I'm sure it was
21 probably done properly, but we just felt it should have
22 been held until the public had a right to comment on it.

23 My other concern was that you brought up that

24 the -- the treatment pad which is in OU1, will continue
25 to be used; is that not correct? For the cleanup of

20

1 the perchlorate.

2 MR. DIAZ: That is correct. The plan is to use it.

3 MS. NOLTENEYER: Well, my concern and how I even got
4 involved with this way from the beginning of the -- was the
5 fact that Golden Valley High School building is right across
6 from that site. In fact, I've been taking pictures from the
7 actual athletic fields of Golden Valley High School and you
8 can see the treatment pads from there and that is of concern
9 to me.

10 And then I noticed that as far as the air
11 quality reports, they only are submitted to you unless
12 you ask for them; is that correct, Jose?

13 MR. DIAZ: That's not correct. They are submit --
14 they have to submit it.

15 MS. NOLTENEYER: They always submit them to you?

16 MR. DIAZ: They have to submit it regardless whether
17 I ask them or not.

18 MS. NOLTENEYER: Okay. Thank you. I like to hear
19 that. Because I -- I like for you to be seeing those.

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20 My understanding now is that if the wind is
21 over 20 miles per hour, you have to shut down.
22 MR. DIAZ: Sustained with it -- that -- if they're
23 sustained winds who are 25 miles an hour, we have to shut
24 down.
25 MS. NOLTENEYER: Is it 25?

21

1 MR. DIAZ: Yes.
2 MS. NOLTENEYER: I thought it was 20.
3 Have you ever shut down?
4 MR. DIAZ: Yes. Yes. Even -- they were not even 25.
5 MS. NOLTENEYER: And you shut them down.
6 MR. DIAZ: And we shut them down.
7 MS. NOLTENEYER: That's good to hear. I'm very glad
8 to hear that.
9 I have a question to Ken -- and I'm sorry, I
10 missed your questions with regard to the amount of soil
11 that's going to be moved because I know that is a
12 concern about the people that live in the surrounding
13 areas there, Circle J, Circle J Estates and there will
14 not be a lot of -- can you tell us which OUs are right

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15 next to Circle J and where -- and how much soil --
16 which ones are right next to it.
17 MR. DIAZ: Yes. OU2 and OU3 are the areas that are
18 closest to the Circle J. Those are the --
19 MS. NOLTENEYER: OU2 and OU3?
20 MR. DIAZ: Yes.
21 MS. NOLTENEYER: And you just moved over 4,000 --
22 MR. DIAZ: Yes.
23 MS. NOLTENEYER: -- cubic yards of dirt prior to
24 this and it's not even included on here.
25 MR. DIAZ: Okay.

22

1 MS. NOLTENEYER: You're saying only on OU3 942 and
2 OU2 163.
3 And I believe -- from what I understand -- I
4 read in the paper it was 4,800 cubic yards of soil that
5 was moved and you just said 4,200 was moved and that
6 would have been from OU3.
7 MR. DIAZ: That's correct. Let me get your first
8 question.
9 MS. NOLTENEYER: Yes.
10 MR. DIAZ: So this area here is the closest to Circle J

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11 Estates (indicating). This is part of OU2, okay. These
12 areas are primarily impacted with the OCs. Okay. So most
13 likely a soil vapor extraction system will operate there for
14 a number of months in those areas.

15 Circle J here is -- which is here, so it's --
16 this is OU4, this is the landfills primarily, very
17 little contamination in those areas, only in the first
18 one in the first landfill -- former landfill here.
19 Okay. So I -- I don't know what the distance is, but I
20 imagine we will use this probably close to 6,000 feet,
21 perhaps to the closest home, possibly.

22 So this is how -- Circle J is probably --
23 this is probably the closest contaminated area to a
24 residential area.

25 MS. NOLTENEYER: And where exactly did you remove

23

1 the 4,000?

2 MR. DIAZ: Depleted uranium was right here in this
3 area.

4 MS. NOLTENEYER: So it's far enough away from the --

5 MR. DIAZ: It's right in the middle of the property.

6 And the transportation of it was, you know, there's a road
7 that goes right through here and it goes up through the --
8 just over there. That's -- that's the road that they used.

9 MS. NOLTENEYER: That they took. That is right where
10 the Metrolink station is.

11 MR. DIAZ: Right. Made a right on Soledad.

12 MS. NOLTENEYER: Where the railroad track is.

13 MR. DIAZ: Yes.

14 MS. NOLTENEYER: Thank you.

15 The other concern is the Metrolink station,
16 is that included now in this OU2, OU- -- OU6?

17 MR. DIAZ: Yes. Yes, it's included.

18 MS. NOLTENEYER: And there will be cleaning up on that
19 site and how will that exactly be accomplished?

20 MR. DIAZ: There is two areas where there is nothing
21 built on top, it is not where the train station was actually
22 built, but it's a little bit away.

23 MS. NOLTENEYER: Is it in the parking lot?

24 MR. DIAZ: No. It's in -- one is in the road -- close
25 to the road in the dirt area.

1 MR. NAGINIS: It's that dirt spot in front of the train

2 station.

3 MR. DIAZ: Yes. There is two -- there is two unpaved

4 areas and those are the areas that are --

5 MS. NOLTENEYER: The unpaved areas in the parking lot

6 or --

7 MR. NAGINIS: Well, It's the parking -- there's a

8 parking lot in the front by Soledad and there's a train

9 station in back. And in front of the train station there's a

10 large dirt patch before the parking lot and that's the main

11 spot where the VOCs in the soil.

12 MS. NOLTENEYER: So it would be VOCs, that you're

13 cleaning up there?

14 MR. DIAZ: Yes. Yes.

15 MS. NOLTENEYER: I know I'm going to have more

16 questions later, but I would like to pass it on to somebody

17 else that has a question.

18 MS. LA DUKE: Anyone else?

19 MS. PLAMBECK: Lynne Plambeck, Santa Clarita

20 Organization for Planning and the Environment.

21 I would like to say that we think the

22 negative declaration should include the work that

23 you've already done on the depleted uranium, just to

24 estimate what happened and to show that that was moved

25 and to show that the soil has now tested clean.

1 And I'd just like to -- yesterday an article
2 was published on the web as a result of Foyer's
3 (phonetic) request to the government. And I think the
4 reason this community has been concerned about the
5 depleted uranium for a long time, even though it's sort
6 of been downplayed, is that it keeps showing up with --
7 with military use in areas like Kosovo where the kids
8 have a lot of high cancer and now Fallujah where it was
9 used and the communities having problems with cancer.
10 So I'd just like to quickly read a little bit of this
11 report.

12 A little-known 1993 Defense Department
13 document written by then Brigadier General Eric
14 Shinseki, now the secretary of Department of Veterans
15 Affairs. Shows that the Pentagon was concerned about
16 DU contamination and the agency had ordered medical
17 testing on all personnel that were exposed to the toxic
18 substance. Shinseki -- Shinseki -- I'm not saying his
19 name right -- memo, under the subject line, Review the
20 draft -- of draft to Congress, health/environmental
21 consequences of depleted uranium in the U.S. Army
22 action and memorandum. Make some small revisions to
23 details that these three orders -- details of these

24 three orders from the Department of Defense. It says
25 that they should require adequate training for

26

1 personnel who may come in contact with DU-contaminated
2 equipment. Complete medical testing of all personnel
3 exposed to DU, end of Persian Gulf war, develop a plan
4 for DU-contaminated equipment recovery during future
5 operations.

6 And then it goes on to talk about Soleman
7 (phonetic) testified as disturbing the reports that
8 have emerged in recent months from Fallujah, Iraq about
9 skyrocketing rates of birth defects and cancers, which
10 are being blamed on DU-laced bombs, ammunitions used by
11 U.S. and British forces during a brutal coalition
12 assault on the city in 2004.

13 The Iraqi human rights officials are
14 reportedly planing to file a lawsuit. We don't want to
15 have file a lawsuit to make sure that we're not having
16 the same problem here.

17 So if you could just include in the mitigated
18 negative dec, soil testing that shows there is no more
19 depleted uranium and shows what trucks you used and

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20 discloses the Energy Solutions company as the one that
21 moved it to Utah, et cetera. I think that would be
22 good full disclosure because I think there is a lot of
23 concern about why that wasn't disclosed to the public
24 beforehand and why there wasn't any discussion of it.
25 Also, the other thing that we believe the

27

1 mitigated negative dec should include, is a -- an
2 overlay of development grading that would be done for
3 Porta Bella and where the pads are going to be graded.
4 The reason is that there is a concern that grading will
5 coincide with future development plans and we do not
6 want to have a situation where grading is done on a
7 mitigated negative declaration, that should be done
8 with full disclosure and in advance for development
9 plans; that EIR for the Porta Bella project is now over
10 15 years old, it probably needs to be redone. And they
11 probably won't put the same housing there. But I think
12 it would be helpful, again, for full disclosure to --
13 for the public to see any plan of grading overlay based
14 on what the development plans are for Porta Bella.

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15 And we'll be supplying written comments.

16 Thank you.

17 MS. LA DUKE: Okay. Thank you.

18 Anyone else have any questions or comments?

19 MS. NOLTENEYER: Along the line -- I'm Carmillis

20 Nolteneyer again. Along that same line with regard to the

21 EIR. Doing a negative, that was done -- it was done before

22 the perchlorate was even discovered on that property, wasn't

23 it?

24 MR. DIAZ: Yes. I believe the EIR for the Porta Bella

25 property -- Porta Bella plan was done before Perchlorate was

28

1 discovered, it was right around the same time. Right -- now,

2 it was 1995 for Porta Bella, 1997 was really the birth of

3 perchlorate.

4 MS. NOLTENEYER: So when you finally -- and what we're

5 looking for is when it is completely cleared up, cleaned out,

6 you signed off on it -- and I still have other comments with

7 regard to that -- but will there be a -- then there will be a

8 complete EIR required on that property before anything can be

9 put onto that property? I mean, we're not going to try to

10 move forward with development on that property with

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11 negative -- mitigated negative dec?

12 MR. DIAZ: You know, we really don't know what the
13 City's plan is for -- what they will -- you know, what they
14 will allow in the future. What we can do -- what we can
15 certainly do, what we're doing is following the general
16 grading of the infrastructure that is going to go onto --
17 that is going to be built on the site. And base our
18 excavations in our clean buffer zones based on those
19 elevations, that's the only thing that we can use at this
20 time.

21 MS. NOLTENEYER: Well, I did pull the incorporation of
22 future weed development plans off your RAP. And it was
23 saying that some of the site areas -- I'm quoting now -- some
24 of the site areas designated for unrestricted land use under
25 the Porta Bella plan, may no longer be suitable for

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1 unrestricted use even after application of remediation. And
2 that -- I won't read it all, it's -- but you know what it is,
3 it's in there, it's 1.4. And it says it should be noted that
4 cleanup objectives will be determined with respect to the
5 final grade as set forth in the Porta Bella plan or other

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6 approved plan. There is other approved plan and not the
7 current grade. We're talking about not being able to be
8 developed as unrestricted. So I guess that's why I'm
9 bringing up, that -- that should be a clue right then that
10 there should be a complete EIR required on this property. I
11 know that's not your area perhaps, but because I know on OU1,
12 I think we can bring that up now, I believe all the questions
13 have been asked about OU2 through OU6.

14 Is it all right to bring up OU1 now?

15 MR. DIAZ: That's fine.

16 MS. NOLTENEYER: On OU1 that -- I'm seeing it reported
17 as though the -- it's completed but it actually hasn't
18 been -- I mean, you've only done surface soils there;
19 correct?

20 MR. DIAZ: Correct.

21 MS. NOLTENEYER: And there will probably be
22 restrictions, there is still areas that you're still working
23 on and -- that may be restricted or not be able to clean up.
24 I think there is one right across from the high school there
25 that you went down, I think 30 or 40 feet and that's as far

1 as you can go technically, but there's still contamination

2 there. So how is that going to be handled?

3 It seems to me that in itself will dictate

4 there has to be another EIR for this property to

5 designate the areas that are going to be restricted in

6 any manner. And that's my concern, is that the public

7 is thinking from what was presented is that it's

8 complete.

9 This main concern I have with the depleted

10 uranium, it was like those things are complete and I

11 don't believe that OU1 is complete except for perhaps

12 surface soils, not for deep soils or -- is that

13 correct?

14 MR. DIAZ: OU1 is not complete. We have not issued

15 any letters that says that OU1 has been completed.

16 MS. NOLTENEYER: Okay. Thank you.

17 MR. DIAZ: What we had issued so far after they

18 completed the excavations for perchlorate primarily and as

19 you know, they're still operating the soil vapor extraction

20 systems to address the remaining VOC contamination. They

21 submitted a report with all the information basically of what

22 they did in the process of doing excavations. And of course,

23 what the letter that we would issue, once they really

24 complete the implementation of the remedial action plan,

25 is a certification saying that the remedy was successively

1 implemented, okay.

2 Now, if there is a need for further action,
3 like in some cases we have sites where future
4 monitoring is required and you have to apply a deed
5 restriction, a land that's covering that -- a portion
6 of the -- of a property, that has to be recorded with
7 the County. Then there's another set of operations and
8 maintenance plan that comes into play after we issue
9 the certification. But we don't say -- you know, we're
10 saying right now is that the excavations have been
11 completed, that's all we're saying at this point.
12 Because it can't go any further, any deeper.

13 MS. NOLTENEYER: Right. That was my understanding.

14 MR. DIAZ: Yes.

15 MS. NOLTENEYER: But I think some of the -- perhaps
16 things that are going out to the public. I believe even on
17 your -- what you sent out, it says "complete" and that is
18 just -- your explanation is exactly right, but I think people
19 are taking that as though it is complete and we can go out
20 there and build on it or something. But I hope that is not
21 because DS12 -- that's why DS12 was done and why we hope it
22 will be adhered to by whoever owns that property and develops
23 it.

24 I had another concern about the -- one of the
25 charts you used where you talked about the perchlorate

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1 when it's down in the alluvium area of the Santa Clara
2 River Channel, that definitely has to be cleaned up and
3 you've done -- you're going to do that.

4 But then you were talking about area 13, when
5 you say, Well, it's -- it's not going to be cleaned up
6 completely or you gave the reference that it's not in
7 the -- down to the alluvium soil, perhaps your cleanup
8 will be different, but since it's so soluble and it
9 just moves with -- with water, why wouldn't that have
10 to be cleaned up completely, or did I misunderstand?

11 MR. DIAZ: Because of the elevation changes, okay.
12 This could be -- this distance between here and here
13 (indicating) be a hundred feet.

14 MS. NOLTENEYER: Okay.

15 MR. DIAZ: So we -- technically we can only go down
16 possibly in this ridges here, approximately can go 30, 40,
17 50 feet at the most, so there will be some residual
18 contamination. The RAP goes into detail as to the overall
19 global approach of dealing with the site. Meaning, that what

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20 we don't catch with the surface -- you know, addressing the
21 surface soils, we're going to have to catch it when the
22 OU7 -- with the OU7 remedy. So this means -- this means
23 years and years of monitoring, it may not be active cleaning
24 but -- you know, it can -- like currently they're operating
25 treatment area here in this area here where there is some

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1 low-flow wells and they're trying to contain the perchlorate
2 that is moving off-site. So it's just a very slow -- low
3 flow, the groundwater doesn't move that fast in that area.
4 So they've been able to treat a lot of water in that area.
5 So we have to wait years for that water to make its way --
6 the contaminated impacted water to make its way to those
7 points where we have wells.

8 Now, there is other remedies where we can
9 possibly inject stuff down here, but it's very
10 difficult, so the depth, it's very difficult to monitor
11 its efficiency. So there is another -- other
12 technologies included and we tested one of those
13 technologies and in fact in this area, in area 11 where
14 they put a barrier, they put a number of wells, they

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15 put a number of wells, they created a barrier by
16 injecting also some bugs and stuff and as water was
17 moving, there is monitoring of wells on the other side
18 of that barrier and they found it to be successful. So
19 that is another possibility that we are looking into.
20 So the goal is, number one, is to keep it on
21 the property, don't let it go off-site. And number two
22 is that there is a hot zone, is to address that hot
23 zone, whether you do it from the top or you do it
24 from -- from -- through OU7. So those are the goals
25 to meet.

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1 And overall -- you know, big-picture approach
2 at this point, to get us going, we're trying to address
3 as much as we can on the hot zones.

4 MS. NOLTENEYER: So most of that will be addressed
5 then at OU7?

6 MR. DIAZ: The deep soil and groundwater, yes.

7 MS. NOLTENEYER: But the problems on OU1 don't -- I
8 noticed you moved them over to OU7, so we won't know the
9 full ramifications of even OU1, until OU7 is addressed;
10 would that be a correct assumption?

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11 MR. DIAZ: Correct. But if it's -- for example, if it's
12 perchlorate, if we think about perchlorate. Perchlorate is
13 the only issue. We're talking about, you know, contamination
14 deeper than 20 feet. Well, if that's the only contaminant in
15 OU1 that we have left -- if you remember the pathways, there
16 is no pathway for human -- for human contact, there is no
17 pathway for exposure, but perchlorate -- perchlorate is going
18 down. So we technically could deem that area unrestricted.
19 Again, there will be monitoring in the future. But that area
20 will -- can be deemed unrestricted because the perchlorate
21 doesn't pose a risk to human health on top.

22 MS. NOLTENEYER: But it will be going down and --

23 MR. DIAZ: And we catch it.

24 MS. NOLTENEYER: But if you have the OCs on there which
25 you still are treating, then you cannot?

35

1 MR. DIAZ: Correct. You know, we talked about the
2 100-foot column essentially. You have to make sure 100 feet
3 of soil has to be cleaned and not pose a risk to human health
4 on top.

5 MS. NOLTENEYER: All right.

6 Well, I know some of us have good concerns
7 because of the City just purchased a piece of property
8 that was -- I believe it was special devices for open
9 space and it did have contaminations of perchlorate
10 with the chemicals on it. And that is one where I
11 looked it up today, there are restrictions on it, there
12 is supposed to be monitoring of it and that sort of
13 thing. But there again, the community is -- is -- got
14 a piece of property that isn't even cleaned up. It's
15 saying, Oh, what a beautiful open-space property we
16 have here. And at first, I believe you were not on
17 that, I believe it was -- would have been Sacramento,
18 that was handling that?

19 MR. DIAZ: Yes. There is a project manager in
20 Sacramento also.

21 MS. NOLTENEYER: Right.

22 And at first they said it just wouldn't move
23 off of the property at all and that just didn't seem
24 too realistic, so then they finally did with the
25 restrictions on it. But it isn't like it's being

1 cleaned up. To me, just personally, that's a big

2 problem in my mind and when I look at Whittaker-Bermite
3 and I look at what's surrounding it, National Technical
4 Systems, where I just saw you gave them a no further
5 action letter in March of this year. And I've been
6 following that property too for years. I followed it
7 when they wanted to build the Golden Valley High School
8 and they wouldn't let them even go on their property or
9 allow them to take any of it for a road.

10 And then we have high sheer (phonetic) which
11 is still there across the Golden Valley Road. And we
12 have the -- oh, Kaiser Century right on the other side
13 of the Whittaker-Bermite property. And I'm just
14 wondering how much cause contamination there is going
15 on.

16 And I was very concerned when I saw the NTS
17 receive your no further action letter and it has
18 perchlorate, at least the little fire star here
19 reported that there was perchlorate on that property.
20 And what was the assumption on that, it's -- it's not
21 coming from their property or why would they get a no
22 further action and also it was paid for with EPA grant
23 is what it states.

24 MR. DIAZ: EPA, their first involvement with the
25 property, they -- they weren't in their radar screen,

1 per se, because they used perchlorate in the bags. So they
2 allocated some money, they gave some money to DPSE to do
3 a site assessment, they did some sampling, that's what
4 EPA, essentially how -- could they contribute to the
5 investigation. The perchlorate that was discovered on the
6 NTS property was discovered in the drainage that's directly
7 connected to OU1, and it was -- there's clearly coming from
8 OU1.

9 MS. NOLTENEYER: So you say --

10 MR. DIAZ: And very low concentrations, very low
11 concentrations. And less than 200, I believe was the highest
12 number that we saw on a drainage and every time it rains they
13 go -- Whittaker's consultants go and monitor that area and
14 make sure that nothing is leading off-site that way.

15 MS. NOLTENEYER: Okay. So that's how you're aware of
16 perchlorate on that site?

17 MR. DIAZ: Correct.

18 MS. NOLTENEYER: And the other chemicals were all
19 cleaned up on that site, what -- again, my concern -- we're
20 getting off track here, I'm sorry about that. But it is
21 right next to the Golden Valley High School and that was
22 actually a training, a personal training center prior to even
23 Markport (phonetic) having it, I believe. They tested --

24 and it's a hazardous testing facility even to this date, I
25 believe. And it's built -- and it backs up right to the

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1 playing fields and the parking lots of the Golden Valley High
2 School. So you can see why some of us get very nervous about
3 whether things are really getting cleaned up or not and I do
4 not see any cleanup process going on at all in that part.

5 But, again, it's just because it is so close
6 and it seems to me there could be a lot of -- a cross
7 just like with the perchlorate of -- anything. An
8 exploded ordinance or I think that was one of their
9 objections to not having anything onto their property,
10 on NTS and yet I haven't seen anything actually being
11 cleaned up on it. So those are my concerns.

12 And I think that we really -- I don't know if
13 there was ever done a health assessment for the entire
14 city or the surrounding area, because before you
15 started cleaning up all of these things, people were
16 drinking that water, they were probably going on that
17 property and we do have a lot of incidents of
18 various -- of leukemia and other things in this
19 community. And I'm just wondering if anything like

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20 that was ever looked at, other than just the health
21 assessment you did on the property and how it might
22 affect your workers or somebody actually living on
23 there now.

24 MR. DIAZ: Well, what we did on the property was a
25 baseline risk assessment where we look at the concentrations

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1 of the chemicals that we found on the property to determine
2 if they pose a risk of human health of the environment,
3 essentially what we did. So if it poses a risk, we have to
4 clean there, clean up. That's the baseline risk assessment.

5 MS. NOLTENEYER: That doesn't really look into how it
6 through the years affected the community like they -- you
7 know, in Simi, the problems they're having there.

8 MR. DIAZ: No. It's not a toxicological study that
9 follows generations, no, it's not anything like that.

10 MS. NOLTENEYER: And there won't be anything like
11 that done?

12 MR. DIAZ: That's not -- that's not part of our
13 jurisdiction, that's not what we do. We try to clean up
14 properties that are contaminated with chemicals, at least

15 our department does.

16 MR. LARDIERE: I just want to make clear, and you've
17 got a toxicologist here, so I'm not a scientist, but he can
18 validate what I'm saying. Perchlorate is not a carcinogen,
19 it does not cause leukemia. It does have in high
20 concentrations, if you drink it in water, you can get thyroid
21 problems. But it is not a carcinogen and if there is cancer,
22 it's not coming from perchlorate. And I'm sure the
23 toxicologist can verify that.

24 MR. JENG: Yeah. I think when we talk about, you know,
25 disease, we have to be very careful because there are so many

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1 compounds and compounding facts.

2 But Eric is correct, perchlorate is not
3 considered a carcinogen. And the main-target organ of
4 the effect is thyroid, thyroid gland. Actually basic
5 effect ability to take out iodine. And actually there
6 are tests you can do to find out if you have decreased
7 level of thyroid hormone. So -- so I think -- but
8 there are also other chemicals that -- okay -- could
9 cause the -- like say iodine deficiency.

10 So I guess go back to your initial question,

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11 ma'am, and Jose is correct, to -- to find correlation
12 between disease and contamination is really not this
13 department's jurisdiction. I think if you have
14 concern, I think the Department of Public Health will
15 be the -- the agency you should contact regarding the
16 disease.

17 MS. NOLTENEYER: I would like to reply, but somebody
18 else has a question.

19 MS. THOMAS: I'm Valerie Thomas. And I've lived in
20 Placerita Canyon for more than 30 years. And when we first
21 moved there, my children were young and we would often go
22 out to clean out the horse stalls on a summer evening after
23 supper, when the sun was going down; it was the first time it
24 was cool enough to do that. And there were explosions that
25 came from the Whittaker property. And I knew from my high

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1 school chemistry that there were chemicals in there. I'm
2 very sorry that the representative from the City has left
3 because this DS12 is really of great importance to the
4 community and preserving it, making sure that nothing is done
5 until the property is pronounced as clean as it can possibly

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6 be.

7 My children are grown, they've moved out of
8 the area. But talking about putting homes on that
9 property where children can be living 24/7 and going to
10 school there and playing there, day in and day out,
11 that property absolutely must be cleaned and this DS12
12 must be honored.

13 Thank you.

14 MS. NOLTENEYER: Just me, addressing perchlorate,
15 doesn't it also affect unborn babies, fetus, it can actually
16 cause damage. And we also have PCE, TCE, vinyl chloride, all
17 carcinogenics that are on that property. So you can see why,
18 you know, the community really should be very concerned about
19 that property and how it is cleaned up. And I see them all
20 listed here. And, again, depleted uranium should be also
21 listed until it's completely cleared. That is something that
22 I feel very strongly about.

23 MS. WARDEN ROBERTS: The only thing I would like to
24 add is that I agree with the comments that have just been
25 made by the two ladies who have spoken just ahead of me.

1 And I think one of the things that someone

2 who has lived here a long time too and have been quite
3 active with not only the formation of the city and the
4 planning commission and other things is that, it's
5 extremely important that we do the utmost that we can
6 to protect the safety and the health of our community.

7 And in looking at you gentlemen thinking you
8 have the technology and the ability and that all you
9 need from us is the confirmation that we're strongly
10 supported continually. And I would like to commend you
11 because I know what a hard job it is to resolve --
12 excuse me -- issues as complicated as Bermite Whittaker
13 project has been. And I commend you for the efforts
14 that you put in and then ask that you use your
15 technology and future reach out so that we protect this
16 community and assist its growth.

17 MS. LA DUKE: That comment was by Connie Warden
18 Roberts.

19 Does anybody else have any questions or any
20 comments?

21 Okay. Seeing none, we're going to go ahead
22 and close the hearing.

23 It is July 29th, it is now about 8:02 p.m.

24 (Public Meeting concluded at 8:02 p.m.)

25

Letter No. D46

Letter from Jennifer Kilpatrick, February 23, 2011

Response 1

The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter stated that Whitaker Bermite is far from being remediated and was concerned with the inclusion on the OVOV Plan of: Via Princessa on the Whitaker-Bermite property; Santa Clarita Parkway on the Whitaker Bermite property across the Santa Clara River; and an Extension of Magic Mountain Parkway from its current intersection with Railroad Avenue into the Whitaker Bermite property.

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The comment states that in accordance with the Porta Bella Specific Plan, roadways must be designed by the Whitaker Bermite property owner.

The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment stated that the Whitaker Bermite site is not yet remediated and neither the City nor the County should be including roadways on the Whitaker Bermite site in the OVOV planning efforts. The City believes that major roadways on the Whitaker Bermite site should be included in buildout conditions for the OVOV project to gain an accurate perspective of roadway conditions. Buildout conditions are likely decades into the future.

Response 5

The commenter states that SCOPE and all other participants reserve the right to challenge the factual assumptions in the traffic models used to prepare the OVOV General Plan and Level of Service determinations. The comment raises legal issues that do not appear to relate to any physical effect on the

environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 6

The commenter noted that information was forthcoming with regard to the status of the remediation efforts on the Whitaker Bermite site. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Response 7

The commenter suggested that the traffic model be re-run without the roadway contained within the Whitaker-Bermite site. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

From: Valerie Thomas <bionic1@sbcglobal.net>
Sent: Wednesday, September 22, 2010 6:26 PM
To: Jason Smisko
Subject: OVOV

Already an error: L-40: The County of Los Angeles operates all public libraries in the planning area.

1

Letter No. D47

Letter from Valerie Thomas, September 22, 2010

Response 1

The commenter stated that there is an error in that the document states that the County of Los Angeles operates all public libraries in the planning area. The document is technically correct, however Section 3.15, Public Services, pages 3.15-3 of the Draft EIR has been made to reflect that the City of Santa Clarita will assume responsibility for the libraries on July 1, 2011. Please see the portion of the Vista Canyon Final EIR entitled, "Revised Draft EIR Pages," for the actual text revision.

From: Valerie Thomas <bionic1@sbcglobal.net>
Sent: Saturday, January 29, 2011 10:31 AM
To: Jason Smisko
Subject: Bermite's OVOV designation

Jason, I've been pouring over the Draft OVOV EIR, but am having some trouble interpreting an 11 X 17 map. The map denoting Preliminary Land Use Policy seems to indicate the Whittaker Bermite property has some Public Institutional designation on it with the rest NL SP or SP.

1

Questions:

1. Am I reading the map correctly?
2. SP is Specific Plan, but what is NL?

Thank you for your help.

Valerie Thomas

Letter No. D48

Letter from Valerie Thomas, January 29, 2011

Response 1

The commenter requested clarification as to the Land Use designations on the Whitaker Bermite site. The land use designation on the Whitaker Bermite site is Specific Plan and Public and Institutional (City owned property).

**Hearing Response E1 Public Hearing Comments from the Planning Commission Hearing of
October 5, 2010**

1. Sandra Catell (Sierra Club)

Sandra Catell commented that the Sierra Club is committed to the Santa Clara River and its tributaries, wants no building in the floodway, protection of flora and floodway and green building. Ms. Catell felt that the project population is too dense. Ms. Catell stated that the traffic study was flawed and inadequate.

Comments regarding floodplain, flora and floodway protection and green building address general subject areas, which received extensive analysis in the Draft EIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. However, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

Ms. Catell's statement regarding the traffic study being flawed and inadequate expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

2. Katherine Squires

Katherine Squires, Conservation Chairman of the Sierra Club stated that there needs to be a limit on urban sprawl. Ms. Squires believes that air quality and biota are mitigable impacts. Ms. Squires requested an extension of time.

Ms. Squires comments regarding urban sprawl, air quality and biota expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The commenter requested additional time to review the Draft Program EIR. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

3. Diane Trautman

Diane Trautman requested that the comment period be extended for two months. She asked how prior Elements are incorporated into the proposed General Plan. Ms. Trautman wanted to know how the new OVOV Plan proposed to financially support the infrastructure.

The commenter requested additional time to review the Draft Program EIR, and requested a 60-day continuance. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Information germane and current to today's standards and conditions were considered from the City's existing General Plan. The comment regarding financial support of infrastructure raises economic issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

4. Pam Ross

Pam Ross of the Calgrove Corridor Coalition requested additional time to review the Draft Program EIR, and requested a 60-day continuance. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

5. Lynne Plambeck

Lynne Plambeck, SCOPE requested a time extension to review the Draft Program EIR. Ms. Plambeck stated that she had concerns with the EIR preparer in that they do too much work for Newhall Land.

The commenter requested additional time to review the Draft Program EIR. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The comment regarding the EIR consultant only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

6. Lee Pulsipher

Lee Pulsipher stated that he owns 50 acres on Soledad Canyon Road and wondered why he did not receive notice of the meetings. He requested to be included on the mailing list for the project. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

7. Cam Noltemeyer

Cam Noltemeyer stated that she felt that the time frame on the public hearing notice as misleading. She asked when should a General Plan be revised? How many General Plan Amendments are allowed during a year? How many can you accumulate in a year? Lastly, she asked why isn't Valencia in a Special Studies District.

Although the City has updated various elements of its General Plan since incorporation, there is no legal requirement regarding time frames for updating the entire General Plan. Of note, the Housing Element is subject to updating and approval by the State when it assigns a timeline for it. Individual elements of a General Plan may be amended up to four times a calendar year.

Comments regarding the public notice and the Valencia Special Studies District raise issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

8. Damon Nagani

Damon Nagani, legal counsel for the Natural Resources Defense Council stated that OVOV is an opportunity for sustainability and he felt that some of the language of the General Plan could be strengthened. He requested an extension of time to review the document.

The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final

decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

**Hearing Response E2 Public Hearing Comments from the Planning Commission Hearing of
December 7, 2010**

1. Valerie Thomas

Valerie Thomas was concerned with the planning efforts with the 200-acre Casden property in North Newhall. Ms. Thomas asked if AB 32 had been considered. Ms. Thomas noted that adequate circulation for the Casden site must be demonstrated before OVOV Plan moves forward.

Ms. Thomas raises General Plan density issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

2. TimBen Boydston

TimBen Boydston indicated that people should read the existing General Plan. Mr. Boydston indicated that he did not want to see the City of Santa Clarita become the Valley or West Los Angeles. He asked “what is so smart about “smart-growth”? He advised that the Planning Commission should look carefully at densification.

Mr. Boydston comments regarding reading the existing General Plan and not wanting to see the City become West Los Angeles or the San Fernando Valley comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Mr. Boydston’s comments regarding densification and the value of smart-growth do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

3. Cam Noltemeyer

Cam Noltemeyer, SCOPE stated who said that the people want OVOV? Ms. Noltemeyer stated that the Vista Canyon project is located in the Santa Clara River. Ms. Noltemeyer stated that there is no OVOV in that there is no cooperation between the City and the County of Los Angeles. Ms. Noltemeyer indicated that given the density figures presented it did not appear that density was being reduced in the County. Lastly, Ms. Noltemeyer stated that the City should not be striving for a traffic level of service D or F.

Ms. Noltemeyer's comments regarding the desire for the OVOV Plan do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Ms. Noltemeyer's comments regarding Vista Canyon acknowledged. The OVOV EIR addressed floodplain impacts in Draft EIR Section 3.12, Hydrology. The OVOV Plan proposes goals and policies that address floodplain impacts which are analyzed in Draft EIR Section 3.12, Hydrology.

Draft EIR Section 3.2 Transportation and Circulation, page 3.2-31 addresses City standards for level of service as follows:

The City strives to achieve LOS D or better on arterial roads to the extent feasible given right-of-way and physical constraints, while recognizing that in higher density urban areas there is generally a tradeoff between vehicle LOS and other factors such as pedestrian mobility, and that LOS E is acceptable in those types of urban settings. In certain situations, higher LOS may be acceptable if it is offset by other improvements/benefits. In residential neighborhoods, vehicular LOS is less important than other factors, such as traffic volumes and speeds.

Ms. Noltemeyer's comments regarding the County of Los Angeles densities do not address the content of the City of Santa Clarita Draft EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

4 Ms. Plambeck

Ms. Plambeck stated that the City did not oppose Skyline Ranch and wrote a supportive letter on Landmark Village but proposes the OVOV Plan which seems to be inconsistent. Ms. Plambeck stated that Supervisor Yaroslavsky did not vote for Newhall Ranch because they will leave and the freeway will be gridlock. Ms. Plambeck asked what studies have been done for OVOV to reduce traffic and she asked how many will use mass transit.

Ms. Plambeck's comments regarding the City's approach to Skyline Ranch and Landmark Village when compared to the OVOV Plan, Supervisor's Yaroslovsky's voting record do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The OVOV Plan is designed to reduce traffic. Please see Draft EIR Section 2.0, Project Description which describes the land uses and densities proposed which are designed to reduce vehicles miles traveled.

Please also see Draft EIR Section 3.2, Transportation and Circulation, page 3.2-1 which details the improvements to circulation patterns with the OVOV Plan:

Comparison of existing conditions to the proposed OVOV plan indicates that four of the five roadway segments that exceed LOS F for existing conditions are forecast to operate at LOS E or better with the proposed OVOV plan. The fifth segment that is at LOS F for existing conditions, McBean Parkway south of Avenue Scott, is shown to remain at LOS F with the OVOV plan. However, the V/C ratio at that location does not increase with the OVOV plan. Buildout of the City's proposed General Plan as compared to the current General Plan would reduce overall traffic on the City's roadways, including those monitored by the Los Angeles County Congestion Management Program (CMP), and at principal intersections.

Hearing Response E3 Public Hearing Comments from the Planning Commission Hearing of November 16, 2010

1. Michael Naoum

Michael Naoum stated that traffic doesn't get better when compared to existing conditions. He indicated that there was inadequate emergency access. He also stated that proposed villages are not near jobs.

With regard to traffic conditions, Section 3.2 Transportation and Circulation, page 3.2-1 concludes the following:

Comparison of existing conditions to the proposed OVOV plan indicates that four of the five roadway segments that exceed LOS F for existing conditions are forecast to operate at LOS E or better with the proposed OVOV plan. The fifth segment that is at LOS F for existing conditions, McBean Parkway south of Avenue Scott, is shown to remain at LOS F with the OVOV plan. However, the V/C ratio at that location does not increase with the OVOV plan. Buildout of the City's proposed General Plan as compared to the current General Plan would reduce overall traffic on the City's roadways, including those monitored by the Los Angeles County Congestion Management Program (CMP), and at principal intersections. However, without implementation of mitigation measures, impacts would be potentially significant. Potential impacts on roadway segments and intersections would be assessed on a project-by-project basis as buildout occurs. The proposed General Plan includes goals, objectives, and policies that each individual development within the Planning Area would be required to abide by to help in reducing the amount of vehicular traffic on the local roadway system. The proposed General Plan includes goals, objectives, and policies relating to parking, safety evacuation routes, hazardous conditions on roadways, and alternative transportation. With implementation of mitigation measures, potential impacts on traffic and circulation would be less than significant.

The commenter states that the Plan would result in inadequate emergency access. The commenter concludes that emergency access would be considered a significant impact. The City does not agree with this conclusion. Section 3.2 Transportation and Circulation outline goals, policies and objectives which would minimize and reduce an emergency access impacts to less than significant as follows:

Emergency access would be evaluated on a project-by-project basis as buildout of the proposed General Plan occurs. However, the proposed General Plan contains several goals, objectives, and policies intended to ensure that adequate emergency access is maintained throughout the Santa Clarita Valley. In order to promote mobility within the roadway network (Goal C 2 and Objective C 2.1), the proposed General Plan seeks to limit excessive cross traffic, access points, and turning movements on arterial highways; and enforce the appropriate spacing of traffic signals at least 0.5 mile apart, and the minimum allowable separation should be at least 0.25 mile apart (Policy C 2.1.1), provide access to individual properties (Policy C 2.1.2), enhance connectivity of the roadway network through such methods as grade separations and bridges (Policy C 2.1.2), protect and enhance the capacity of the roadway system by upgrading intersections when necessary (Policy C 2.1.3), ensure that the future dedication and acquisitions of roadways are based on projected demand (Policy C 2.1.4), and implement the construction of paved crossover points through medians for emergency vehicles (Objective C 2.2 and Policy C 2.2.9).

Additionally, the proposed General Plan would facilitate consideration of the needs for emergency access in transportation planning (Objective C 2.5). The City would maintain a current evacuation plan (Policy C 2.5.1), ensure that new development is provided with adequate emergency and/or secondary access, including two points of ingress and egress for most subdivisions (Policy C 2.5.2), require visible street name signage (Policy C 2.5.3), and provide directional signage to the I-5 and SR-14 freeways at key intersections to assist in emergency evacuation operations (Policy C 2.5.4).

Proposed villages would provide jobs as a part of the development proposal. The jobs are not at village sites now but would be a part of future growth.

2. Diane Trautman

Diane Trautman indicated that she sent a letter with questions previously. Notifications must be prepared properly. She stated that she does not feel that the multi-modal plan goes far enough and bike trails are not coordinated. Ms. Trautman further stated that all policies and goals must be fulfilled otherwise the plan will fail. Last, Ms. Trautman stated that she doesn't agree with Significant and Unavoidable Impacts.

Ms. Trautman's letters have been addressed and are a part of the Final EIR. The comment regarding the multi-modal plan, coordination of bike trails and significant and unavoidable effects only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The City concurs with Ms. Trautman that implementation of the goals and policies of the OVOV Plan are important to its success. No further response is required.

3. Annette Lucas

Annette Lucas stated that the Noise Element is difficult to read and she requested that more time be allocated to review the Draft EIR. Ms. Lucas questioned why higher density adjacent to existing residential. Ms. Lucas also stated that Land Uses need to be decreased for established neighborhoods. Lastly, Ms. Lucas felt that OVOV projects too far into the future.

The commenter requested that the comment period be extended. The Draft Program EIR comment period was extended to 150 days (an extension of 105 days in addition to the standard CEQA 45-day review period). Higher residential density is proposed towards the core of the City, a conscious decision to increase intensities closer to jobs and transit, thereby reducing vehicle miles traveled.

The comment addressing land uses should be decreased for existing neighborhoods and that OVOV projects too far into the future only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

4. Lynne Plambeck

Lynne Plambeck stated that the public comment on such important General Plan issues should not be at midnight. She suggested that the hearing should be re-held to accommodate citizens. Ms. Plambeck requested that the comment period be extended. Ms. Plambeck stated that if monies aren't available, roadways won't get improved. Ms. Plambeck felt that Job/housing balance doesn't always work. Ms. Plambeck asked how General Plan Amendments in the County are going to be controlled.

The City rescheduled the public meeting addressing the general Plan topics to to December 7, 2011 to accommodate the lateness of the hour. The commenter requested that the commenter period be extended. The Draft Program EIR comment period was extended to 90 days (an extension of 45 days in additional to the standard CEQA 45-day review period).

With regard to improvements to and building of roadways, there are several roadways that have been built with Bridge and Thoroughfare fees (B&T) which include funding with fair share or in-lieu fees. These roadways include: The Cross Valley Connector, which is a combination of Newhall Ranch Road and Golden Valley Road, was built with B&T funds (in addition to developer contributions and grant funds).

The Golden Valley Road bridge over SR-14 will be widened/improved with B&T funds (in design stage); Copper Hill Drive, and Plum Canyon Road.

Also, many of the City and County arterials are built by developers, but indirectly the B&T Districts make this possible, because the developers get B&T credits for the roads they build.

The comment regarding jobs/housing balance not working only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Ms. Plambeck's comments regarding control over County of Los Angeles GPAs are not in the control of the City of Santa Clarita and raises issues that do not appear to relate to any physical effect on the

environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

5. Cam Noltemeyer

Cam Noltemeyer stated that discussion regarding Land Use and Circulation should not be heard at midnight. This process is not oriented towards the public. Ms. Noltemeyer stated that there are higher densities in the City and reduced densities in the County. Ms. Noltemeyer noted further that the Draft EIR acknowledges Significant and Unavoidable Impacts, will require a Statement of Overriding Considerations and wondered who is gaining? Lastly, Ms. Noltemeyer are what studies were based on that projected 20-50 years into the future.

Please see **Response 5** above regarding rescheduling the subject matter to December 7, 2010.

The comment regarding the City having higher densities when compared to the County and that the OVOV Plan would result in Significant and Unavoidable Impacts and a Statement of Overriding Considerations restates information contained in the Draft EIR and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The analysis and methodology by which many studies were based can be found in Draft Program EIR Section 2.0, Project Description, page 2.0-24 and states the following:

“Based on a detailed analysis of the planning area conducted by traffic analysis zones, staff from the City and County have determined that population of the Santa Clarita Valley at full buildout of the uses shown on the land use map of the General Plan will be approximately 460,000 to 485,000 residents, comprising 150,000 to 160,000 households. The methodology used by staff to develop these detailed demographic projections involved the following steps:

- 1. Staff prepared projections for each traffic analysis zone (TAZ) contained in the traffic model. For purposes of traffic modeling, a TAZ is a portion of land within the planning area in which certain land uses have been designated, the development of which is expected to generate new vehicle trips to serve future development. Only undeveloped or underutilized land will be expected to be used for new development that will generate new vehicle trips. Therefore, each TAZ was analyzed to determine the percentage of land that was already fully built out, and the amount of land available for new development or rebuilding. There are 455 TAZs in the traffic model for the planning area.*
- 2. Staff compared each TAZ with a current aerial photograph and Planning Department records to determine the amount of developable land in each one. Land was considered to be developable if it was vacant or underutilized, privately owned, designated and zoned for future development, and free of major constraints such as ridgelines and floodways.*

3. *For land within each TAZ, staff estimated the projected actual buildout capacity under the draft Land Use Map, considering parcelization, existing and surrounding development, access, topography, drainage patterns, infrastructure capacity, and similar site constraints.*
4. *Portions of the Planning Area outside of the TAZ had trips designated to the nearest TAZ.*
5. *The result of this analysis was an estimated buildout capacity for each TAZ in terms of dwelling unit number and type; non-residential development potential (including commercial, business park, retail, and institutional space); public uses, including government and school facilities, parks and open space; and land devoted to infrastructure (such as streets and highways, transmission corridors, and flood control easements).*
6. *The projections generated from the TAZ analysis represent staff's best efforts to achieve a realistic vision of actual buildout potential for the planning area. In preparing the OVOV land use projections, staff acknowledged that portions of the planning area are already largely developed, and that the General Plan is not based on a "clean slate" of vacant, undeveloped land. Existing uses and development patterns must be recognized in planning for new uses.*

For purposes of a theoretical comparison, the TAZ analysis could be compared to the "worst case" buildout projections of the General Plan land use map. The worst case scenario assumes that all existing uses are subject to demolition, reconstruction, or intensification to achieve the maximum density allowed by the land use map. For example, if an area is designated for single-family residential uses at five dwelling units per acre and the area is already developed at four dwellings per acre, the worst case scenario assumes that the existing subdivisions would be replaced with new subdivisions at a higher density, or that existing units would be subdivided into multi-family structures to achieve the higher density. Because many areas of the Santa Clarita Valley have been developed within the last 20 years with structures that have useful life spans of 50 years or longer, staff determined that it would be unreasonable to assume that all existing development would be replaced with new development at the highest possible density allowed by the land use map. For this reason, the "worst case" scenario under the land use plan was not used as the basis for demographic projections. Instead, the TAZ analysis described above formed the basis for reasonable buildout projections of land use, dwelling units, population, and employment." Employment projections assumptions are outlined on page 2.0-25 and 26.

**Hearing Response E4 Public Hearing Comments from the Planning Commission Hearing of
January 18, 2011**

1. Susan Carey

Susan Carey stated that the Draft EIR did not state what the population increase will be. The commenter is incorrect, in that the Draft EIR does present a comparative population analysis. Ms. Carey noted that the project population increase will impact traffic, infrastructure, air quality and water costs. Draft EIR, Section 6.0, Alternatives, Alternative 1, No Build page 6.0-19 provides a comparison of the existing General Plan population numbers and the proposed OVOV population projections. Furthermore, the Draft EIR analyzes the impacts of such population growth on traffic, air quality, water etc.

2. Carol Luteness

Carol Luteness, Santa Clarita Valley Fair Elections Committee stated that there must be an end to urban sprawl and that the Santa Clarita Valley must include low income housing and housing for the gaining and persons with special needs. The Housing Element that is a part of the OVOV Plan includes goals and policies for the provision of affordable housing, and the aging and special needs.

Ms. Luteness' comments regarding an end to urban sprawl express the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

3. Valerie Thomas

Valerie Thomas voiced concern regarding response to her letter submitted in December 2010. She also stated that the OVOV traffic study is not available. Ms. Thomas also raised concern regarding development in North Newhall.

Ms. Thomas was provided a CD of the OVOV Plan and EIR, the OVOV traffic study is included on the CD. All comment letters submitted on the OVOV document will be responded to as a part of the OVOV Final EIR. Lastly, specific developments in the North Newhall area will receive separate and site specific environmental analysis at such time that they are submitted to the City.

4. Lynne Plambeck

Lynne Plambeck stated that the OVOV Draft EIR is deficient in that it does not provided a baseline to Project analysis. Ms. Plambeck is incorrect. The OVOV document not only provides a baseline to project analysis but it also provides a Plan to Plan analysis as well.

5. Cam Noltemeyer

Cam Noltemeyer stated that the community was not involved in the preparation of the document. Additionally she stated that the specific impacts of Ozone are not included in the document. Ms. Noltemeyer stated that she did not understand why increased density was provided in the City center and less density on the outlying areas (County). Ms. Noltemeyer stated that the City could not control the densities in the County of Los Angeles. Lastly, Ms. Noltemeyer noted that there are overriding considerations that must be adopted for the EIR.

The community has numerous opportunities to participate in the preparation of the OVOV EIR. Please see Section 1.0, Introduction for a listing of all community and public meeting held during the preparation of the document. Tables 3.3-6 and 3.3-7 of Section 4.4, Air Quality provide the status of ozone in the region. Furthermore, ozone impacts are discussed throughout this EIR section. Density is provided in the City center as that is the best location for people to be able to use transit the most effectively and the best way to reduced traffic trips to satisfy SB 32 and AB375. Ms. Noltemeyer is correct in that if the project is approved the City Council will need to adopt a Statement of Overriding Considerations.

6. Allan Cameron

Allan Cameron stated that the OVOV Plans between the County of Los Angeles and the City of Santa Clarita are not the same. Mr. Cameron stated that a contrasting report should be provided to show the differences between the two plans. Mr. Cameron stated that the OVOV Plan needs 2,000 more acres of industrial in order for the Plan to work. Lastly, Mr. Cameron requested more time to review both the City and County documents.

A comparative chart depicting differences between the City and County OVOV documents is outlined below. Please be advised that these documents are available on the Department of Regional Planning's Web Site, as follows:

- Chart with differences between goals, objectives, and policies: http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-goals.pdf
- Chart with differences between land use designation descriptions: http://planning.lacounty.gov/assets/upl/project/ovov_chart_city-plans.pdf

- A map showing the changes in land use designations can be found on OVOV-NET, an Interactive Geographic Information System (GIS) that includes the County's existing and proposed land use designations, as well as other geographic information, may be accessed at <http://planning.lacounty.gov/ovovnet>. In addition, Section 3.1 of the County's Revised Draft Environmental Impact Report (RDEIR) includes a land use change map (Figure 3.1-3). Section 3.1 of the Revised Draft EIR is available on the Department of Regional Planning's Web Site: http://planning.lacounty.gov/assets/upl/project/ovov_2010-eir-3-1-land-use-111710.pdf

Mr. Cameron did not provide any substantiation for his assertion that 2,000 additional acres of industrial uses are needed for the OVOV Plan to work. The comment expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Mr. Cameron's request for additional time raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

**Hearing Response E5. Public Hearing Comments from the Planning Commission Hearing of
March 1, 2011**

1. Carol Luteness

Carol Luteness, Santa Clarita Valley Fair Elections Committee stated that there must be an end to urban sprawl and that the Santa Clarita Valley must include low income housing and housing for the gaining and persons with special needs. The Housing Element that is a part of the OVOV Plan includes goals and policies for the provision of affordable housing, and the aging and special needs.

Ms. Luteness' comments regarding an end to urban sprawl expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

2. Diane Trautman

Diane Trautman requested that the comment period be extended. She asked how prior Elements are incorporated into the proposed General Plan. Ms. Trautman wanted to know how the new OVOV Plan proposed to financially support the infrastructure.

The commenter requested additional time to review the Draft Program EIR, and requested a 60-day continuance. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Information germane and current to today's standards and conditions were considered from the City's existing General Plan. The comment regarding financial support of infrastructure raises economic issues that do not appear to relate to any physical effect on the environment. Please also see Responses to Letters D38 and D43 submitted by Ms. Trautman. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

3. Todd Hoover

Todd Hoover requested a 6-month to 1-year continuance of the comment period due to the technical nature of the documentation. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the

decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

4. Minerva Williams

Minerva Williams was concerned regarding cleanup of soil, traffic and circulation, sanitation fees and funding concerns for the Whitaker Bermite property. Ms. Williams asked if Santa Clarita Parkway and Via Princessa are a part of the Circulation Element.

At such time that the Whitaker Bermite project is submitted to the City, it will have its own site-specific environmental document that will address the environmental impacts of the project. The OVOV Plan does not address site-specific impacts of any one project. However, both the Santa Clarita Parkway and the Via Princessa project are included in the OVOV Circulation Element.

5. Sandra Catell

Sandra Catell, resident of Placerita Canyon was concerned with the residential densities proposed for Placerita Canyon. She stated that she does not want an urban environment in a rural area. The commenter requested additional time to review the Draft Program EIR. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

The comment regarding densities in Placerita Canyon raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

6. Valerie Thomas

Valerie Thomas raised questions regarding the Smiser, Casden properties in the North Newhall area. At such time that the Smiser, Casden projects are submitted to the City, they will have their own site-specific environmental document that will address the environmental impacts of the project. The OVOV Plan does not address site-specific impacts of any one project.

Ms. Thomas also raised issues concerning circulation, the MX-N land use designation and high density in Placerita Canyon. Please see written responses D9, D24, D28 and D35.

Lastly, Ms. Thomas stated that the Circulation Element is not adequate. The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the

decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

7. Cam Noltemeyer

Cam Noltemeyer stated that she felt that the Planning Commission hasn't discussed OVOV as a Commission. She stated that both the County of Los Angeles and City of Santa Clarita have ignored their General Plans by the way that they approve General Plan Amendments, Conditional Use Permits and Variances. Ms. Noltemeyer was concerned with the City adopting overriding considerations for the Draft EIR.

The comment regarding the Planning Commission not doing its duty and adoption of overriding considerations only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

8. Rob Hall

Rob Hall, President of PCPOA, requested that the North Newhall, Casden properties integrate into the Placerita canyon area.

The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

9. Arnold Graham

Arnold Graham, legal counsel for PCPOA stated the PCPOAs concerns regarding density, maintaining the rural atmosphere of Placerita Canyon, traffic and the Circulation Element. Please see letter **response D23**, Placerita Canyon Property Owners Association.

10. Ben Curtis

Ben Curtis, resides in Placerita Canyon and reiterated that the Placerita Canyon has a Special Standards District. He also noted that there are challenges with the Smiser and Casden sites. He also requested more time to review the document. The comment raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

11. Lynne Plambeck

Lynne Plambeck indicated that she had compared language from the current General Plan to the proposed OVOV Plan and she stated that stronger language was included in the current General Plan. Please see **letter D45, Response 14**.

12. Allan Cameron

Allan Cameron stated that the testimony received by the Planning Commission during this hearing will not be responded to as it is being held after the close of the public comment period. Mr. Cameron stated that he was concerned that some roadways would have a Level of Service F and that this seemed to be acceptable to the City. Mr. Cameron suggested that the following Alternative be analyzed as a part of the project: "Reduce the use of the intersection to the level that it sustains."

Mr. Cameron is incorrect in that all of the testimony conducted at public hearing before the Planning Commission and City Council are responded to. Section 3.2, Transportation and Circulation page 3.2-42 states the following with regarding to Level of Service F: "Therefore, five fewer roadway segments would operate at LOS F with implementation of the proposed City General Plan and County Area Plan [when compared to the current General Plan]. Consequently, roadway operations would incrementally improve with implementation of the proposed City General Plan and County Area Plan in place of the current City General Plan and County Area Plan."

With regard to the proposed suggested Alternative, Section 6.0, Alternatives page 6.0-1 provides discussion on reasoning with regard to the selection of Alternatives: "According to the *State CEQA Guidelines*, an EIR needs to examine a reasonable range of alternatives to a project, or its location, which would feasibly meet most of the basic objectives of the project while avoiding or substantially lessening significant impacts. When addressing feasibility, the *State CEQA Guidelines* Section 15126.6 states that "[a]mong the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the applicant can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." Pursuant to the *State CEQA Guidelines*, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include (1) the nature of the significant impacts of the proposed project; (2) the ability of alternatives to avoid or substantially lessen the significant impacts associated with the project; (3) the ability of the alternatives to meet the objectives of the project; and (4) the feasibility of the alternatives."

The City believes that it has provided a range of Alternatives that meet the intent of the *State CEQA Guidelines*, to reduce significant and unavoidable impacts of the proposed project. Furthermore, the *State CEQA Guidelines* are clear that the Alternatives provided for review need not be exhaustive: “CEQA Section 15126.6 CONSIDERATION AND DISCUSSION OF ALTERNATIVES TO THE PROPOSED PROJECT.

- (a) *Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.”*