Via Princessa Park Project

Biological Technical Report

November 8, 2023 | 03100.00012.001

Prepared for:

City of Santa Clarita
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ACRONYMS AND ABBREVIATIONS

AMSL	Above Mean Sea Level
BMPs	Best Management Practices
BUOW	Burrowing Owl
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
City	City of Santa Clarita
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FESA	Federal Endangered Species Act
GPS	Global Positioning System
HELIX	HELIX Environmental Planning, Inc.
ISA	International Society of Arboriculture
LBVI	Least Bell's Vireo
MBTA	Migratory Bird Treaty Act
MCV	A Manual of California Vegetation
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
PDF	Project Design Feature
Project	Via Princessa Park Project
RWQCB	Regional Water Quality Control Board
S	State
SEA	Significant Ecological Areas
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) completed this biological technical report for the Via Princessa Park Project (project), which is located north of the intersection of Via Princessa and Weyerhaeuser Way in the City of Santa Clarita (City), Los Angeles County, California. The City would construct and operate the park, which includes athletic fields, pickleball courts, playground equipment, and other recreational facilities. The project would also improve parking, provide park access, and potentially implement street improvements along Weyerhaeuser Way. Other project components include a regional stormwater infiltration facility, buried bank protection, a storm drain culvert extension, and channel restoration. This report documents the existing biological conditions on and in the immediate vicinity of the project site and provides an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal laws.

The approximately 38-acre project site, which includes the 34-acre project footprint and temporary construction access, is directly adjacent to the Santa Clara River and was historically used for agriculture. The northern portion of the project site is undeveloped and dominated by non-native upland mustard fields. Small patches of native upland habitat include big sagebrush, California buckwheat scrub, scale broom scrub, and yerba santa scrub. The project site supports the Santa Clara River and two tributaries (Honby Channel and Tributary A), in addition to an unnamed drainage complex (Drainage A and Tributary A1). Riparian and alluvial habitat associated with the drainages include Fremont cottonwood forest and woodland, mule fat thickets, and scale broom scrub. The southern portion of the project site consists of the Via Princessa Metrolink Station and associated parking lot in addition to the railroad tracks that run east-west through the project site.

HELIX conducted a general biological survey (including vegetation mapping and a general habitat assessment) and a jurisdictional delineation on November 14 and 15, 2022. HELIX completed focused surveys for rare plant species in April 24 and July 18, 2023, burrowing owl (*Athene cunicularia*; BUOW) between April and July 2023, and least Bell's vireo (*Vireo bellii pusillus*; LBVI) between April and July 2023. Dr. Douglas Yanega conducted focused surveys for Crotch's bumble bee (*Bombus crotchii*) between May and July 2023. HELIX also completed a tree survey on December 13 and 15, 2022. The tree survey was performed within the project site and a 50-foot buffer area that was designated by the City in coordination with the City's Urban Forestry Office.

Thirteen vegetation communities were mapped on the project site. Native-dominated communities totals 4.13 acres, which includes big sagebrush (0.63 acre), Fremont cottonwood forest and woodland (0.46 acre), mule fat thickets (0.42 acre), scale broom scrub (1.52 acres), scale broom scrub/upland mustard fields (0.69 acre), and yerba santa scrub (0.41 acre). Fremont cottonwood forest and woodland and scale broom scrub are considered sensitive communities pursuant to the California Department of Fish and Wildlife (CDFW). No rare plant species were detected during focused surveys. Based on a literature review conducted on CDFW's California Natural Diversity Database (CNDDB; CDFW 2023a), 14 sensitive animal species were determined to have the potential to occur on the project site, including six species with a low potential (California glossy snake [*Arizona elegans occidentalis*], pallid bat [*Antrozous pallidus*], southern grasshopper mouse [*Onychomys torridus ramona*], Swainson's hawk [*Buteo swainsoni]*; foraging only), western mastiff bat [*Eumops perotis californicus*; foraging only], and western yellow bat [*Lasiurus xanthinus*]) and five species with a moderate potential (California legless lizard [*Anniella stebbinsi*], coast horned lizard [*Phrynosoma blainvillii*], coastal whiptail [*Aspidoscelis tigris stejnegeri*], loggerhead shrike [*Lanius ludovicianus*], and white-tailed kite [*Elanus leucurus*]). Crotch's

bumble bee, BUOW, and LBVI are currently presumed absent from the project site based on negative focused surveys.

The project site supports a portion of the Santa Clara River and two tributaries (Honby Channel and Tributary A). The project site also supports an unnamed drainage complex (Drainage A and Tributary A1). The project site supports approximately 2.086 acres of U.S. Army Corps of Engineers (USACE) waters of the U.S., 2.139 acres of Regional Water Quality Control Board (RWQCB) waters of the State, and 3.269 acres of CDFW streambed and associated vegetation. A small area in the upstream portion of Honby Channel was identified as wetland waters the U.S. and State (0.030 acre).

While the project site is not considered a regional wildlife movement corridor, the adjacent Santa Clara River is a regional wildlife movement corridor. The project site may provide adjacent habitat for wildlife moving through the Santa Clara River. The project site also provides habitat for local wildlife that are moving shorter distances throughout the area, such as common mammals that are adapted to human disturbance. The project site supports opportunities for local wildlife movement and provides adjacent habitat for regional wildlife movement through the Santa Clara River, but the project site does not function as a wildlife corridor given that existing development constrains movement to the east, south, and west, and the site does not directly connect to two or more blocks of large habitat.

Five oak trees that meet the City's definition of a protected tree were recorded within the tree survey area, including four coast live oaks (*Quercus agrifolia*) and one interior live oak (*Quercus wislizeni*). These oaks are located in the existing Metrolink parking lot in the southeast portion of the project site (Figure 7, *Oak Tree Locations*). These trees are not considered Heritage Oak Trees, and no other oak trees were observed within the tree survey area. Eighty-seven trees that are not protected under the City's Ordinance were also recorded within the tree survey area. In addition, the project site is located within the City's Santa Clara River Significant Ecological Area (SEA) overlay zone and would require compliance with Santa Clarita Unified Development Code Section 17.38.080.

Project impacts to biological resources were assessed by digitally overlaying the project footprint on mapped vegetation, jurisdictional resources, and trees. Potentially significant impacts were identified for sensitive animal species, including bat species, southern California legless lizard, Crotch's bumble bee, and BUOW. The project would require impacts to sensitive vegetation communities, including permanent impacts to 0.26 acre of Fremont cottonwood forest and woodland and 0.18 acre of scale broom scrub, and temporary impacts to 0.20 acre of Fremont cottonwood forest and woodland and 1.34 acres of scale broom scrub. The project will result in permanent impacts to 0.243 acre of USACE waters of the U.S., 0.245 acre of RWQCB waters of the State, and 0.544 acre of CDFW jurisdictional streambed and associated riparian vegetation. This includes 0.030 acre of wetland waters of the U.S. and State. In addition, the project will require temporary impacts to 1.843 acres of USACE waters of the U.S., 1.847 acres of waters of RWQCB waters of the State, and 2.474 acres of temporary impacts to CDFW jurisdictional streambed and associated riparian vegetation. The project site has the potential to support nesting songbirds and raptors. The project would not impact rare plants, LBVI, or City-protected oak trees. The project would increase native cover within Honby Channel, providing higher quality habitat adjacent to the Santa Clara River. The project would not impact wildlife movement through the Santa Clara River. The scenic quality of the area would be preserved and native habitat within Honby Channel would be expanded, and therefore, the project conforms to the City's SEA overlay zone.

Mitigation measures related to the following topics are proposed herein to reduce impacts to a level of less than significant for the project: sensitive bat species, southern California legless lizard, Crotch's bumble bee, BUOW, sensitive vegetation communities, jurisdictional resources (including wetland waters, non-wetland waters, and streambed), and nesting birds. Successful implementation of these measures would mitigate potential impacts to below a level of significance.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report provides the City of Santa Clarita (City; California Environmental Quality Act [CEQA] lead agency), resource agencies, and the public with current biological data to satisfy review of the proposed Via Princessa Park Project (project) located in the City of Santa Clarita, Los Angeles County, California. The purpose of this report is to document the existing biological conditions on and in the immediate vicinity of the project and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resources technical documentation necessary for project review under CEQA by the lead agency.

1.2 PROJECT LOCATION

The project site is generally located one mile west of State Route 14 and six miles east of Interstate 5 in the City of Santa Clarita, Los Angeles County, California (Figure 1, *Regional Location*). The project site is within Sections 20 and 29 of Township 4 North, Range 15 West of Mint Canyon, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located north of the intersection of Via Princessa and Weyerhaeuser Way (Figure 3, *Aerial Photograph*). The Metrolink railroad runs in an east-west direction through the southern portion of the project site.

1.3 PROJECT DESCRIPTION

The project proposes to construct and operate Via Princessa Park on an approximately 38-acre area (including temporary construction access areas) of mostly City-owned land. The City will obtain construction easements for improvements that will occur on land that is not owned by the City. The proposed project includes athletic fields with sports field lighting, pickleball courts, playground equipment, and other recreational facilities, such as walking paths, shade structures, picnic areas, public art, and education and monument signage (Figure 4, *Site Plan*). Additionally, the project would provide parking, park access, and other amenities and improvements, including alterations to the existing Via Princessa Metrolink Station parking lot, potential maintenance-level improvements to the Metrolink Station platform facilities, construction of a pedestrian and vehicle (restricted access) railroad undercrossing (including removal of the existing at-grade pedestrian crossing), relocation of an existing storm drain line, construction of a new restroom building with associated utilities, improvements to the existing restroom/office building located in the parking area, landscaping and irrigation improvements, and restoration of the existing Honby drainage channel.

In addition to recreational improvements, the project would include a regional stormwater infiltration facility. Other project civil and geotechnical design features include buried bank protection, a storm drain culvert extension, and channel restoration, as well as the removal of an agricultural well. Additionally, a fourth lane may be added to Weyerhaeuser Way, and modifications may be made to Via Princessa Road to accommodate a double-left turn lane into and/or out of Weyerhaeuser Way.

2.0 METHODS

Project evaluation included a review of project plans; a literature review of biological resources occurring on the project site and surrounding vicinity; a general biological survey, including vegetation mapping and a general habitat assessment; focused surveys for rare plant species, Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*; BUOW), and least Bell's vireo (*Vireo bellii pusillus*; LBVI); a jurisdictional delineation; and a tree survey. The methods used to evaluate the biological resources present on the project site are discussed in this section.

2.1 NOMENCLATURE

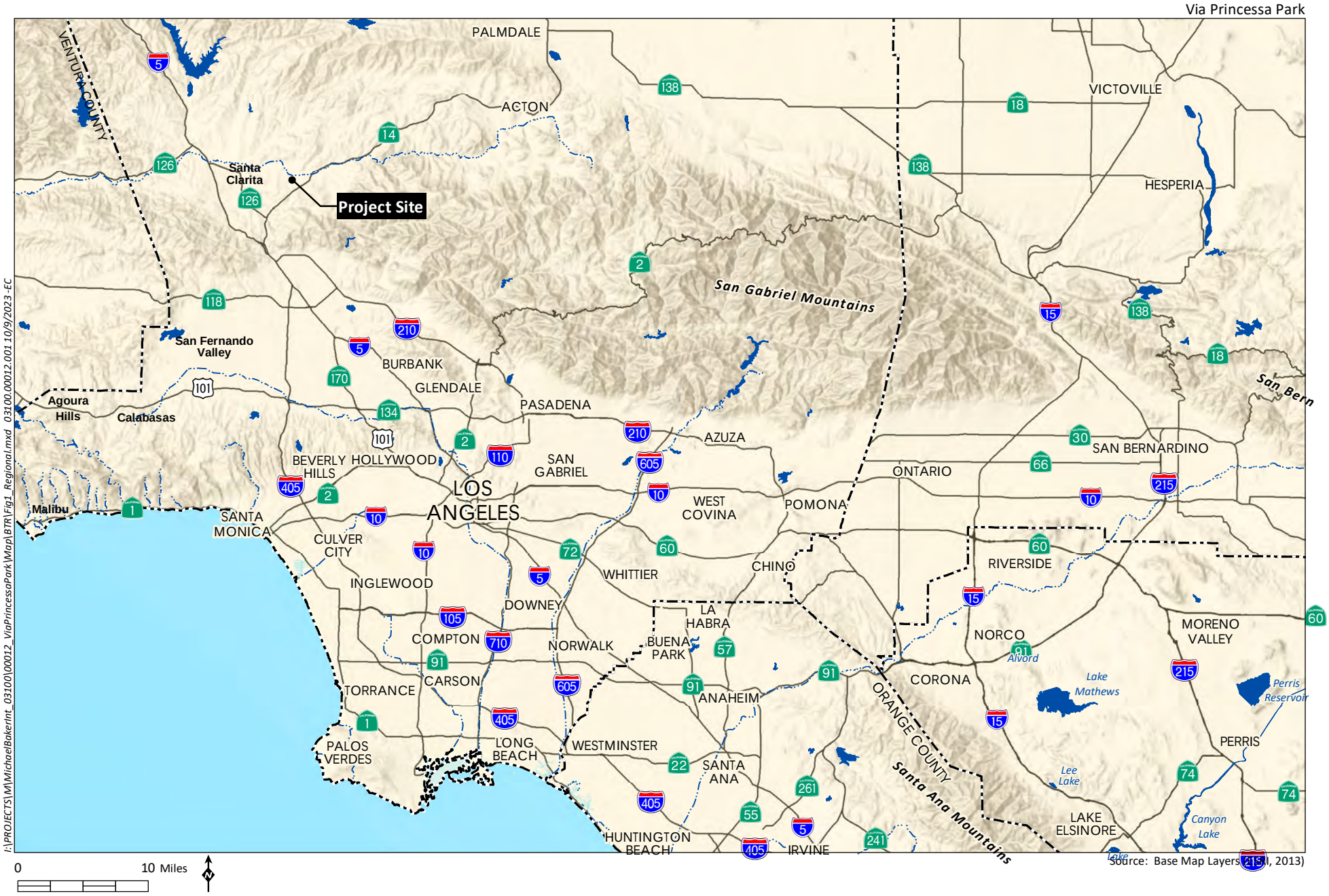
Nomenclature for this report follows Baldwin et al. (2012) for plants. Plant communities were classified in accordance with the Manual of California Vegetation, Second Edition (MCV; Sawyer et al. 2009), with additional vegetation community and land use information from Oberbauer (1996). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, Center for North American Herpetology (California Herps 2023) for reptiles and amphibians, American Ornithological Society (2023) for birds, and Baker et al. (2003) for mammals. Rare plant and sensitive animal statuses are from the Inventory of Rare and Endangered Plants of California (California Native Plant Society [CNPS] 2023a) and the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW 2023a). Rare plant species' habitats and flowering periods are from the Jepson Manual (Baldwin et al. 2012), the Inventory of Rare and Endangered Plants of California (CNPS 2023a), and California Natural Diversity Database (CDFW 2023a). Soil classifications were obtained from the Web Soil Survey (Natural Resources Conservation Service [NRCS] 2023).

2.2 LITERATURE REVIEW

Prior to conducting the site visit, HELIX Environmental Planning, Inc. (HELIX) reviewed regional planning documents, Google Earth aerials (2023), Web Soil Survey (NRCS 2023), and sensitive species database records, including the Inventory of Rare and Endangered Plants of California (CNPS 2023a), CNDDB (CDFW 2023a), and critical habitat maps for endangered and threatened species (U.S. Fish and Wildlife Service [USFWS] 2023a). A nine-quadrangle database search was conducted on CNDDB and CNPS, which included the following quadrangles: Agua Dulce, Green Valley, Mint Canyon, Newhall, Oat Mountain, San Fernando, Sleepy Valley, Sunland, and Warm Springs Mountain.

2.3 FIELD SURVEYS

Field surveys were conducted to document the existing condition of the project site and surrounding lands. A general biological survey and habitat assessment were conducted on the project site to map existing vegetation communities and to determine habitat suitability for sensitive plant and animal species. A list of plant and animal species observed and/or detected during the field surveys are provided as Appendix A, *Plant Species Observed* and Appendix B, *Animal Species Observed or Detected*. Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the list of animal species identified is not necessarily a comprehensive account of all species that use the project site as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Focused surveys for rare plant species, Crotch's bumble bee, BUOW, and LBVI were conducted. A jurisdictional delineation was conducted to determine the existing



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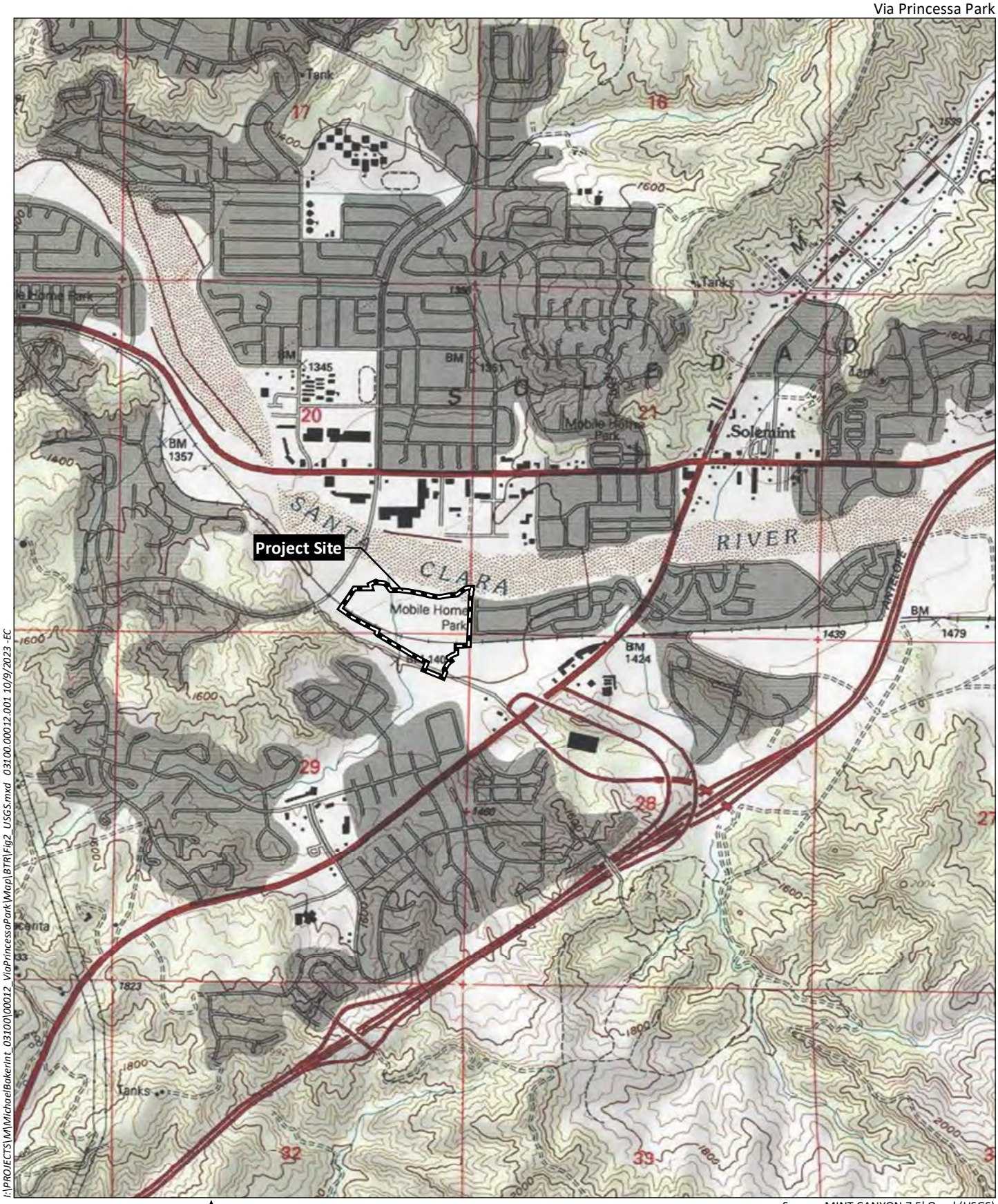
Regional Location

Figure 1

Via Princessa Park



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0 2,000 Feet

Source: MINT CANYON 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Via Princessa Park

0 350 Feet

Source: Aerial (Maxar, 2022)

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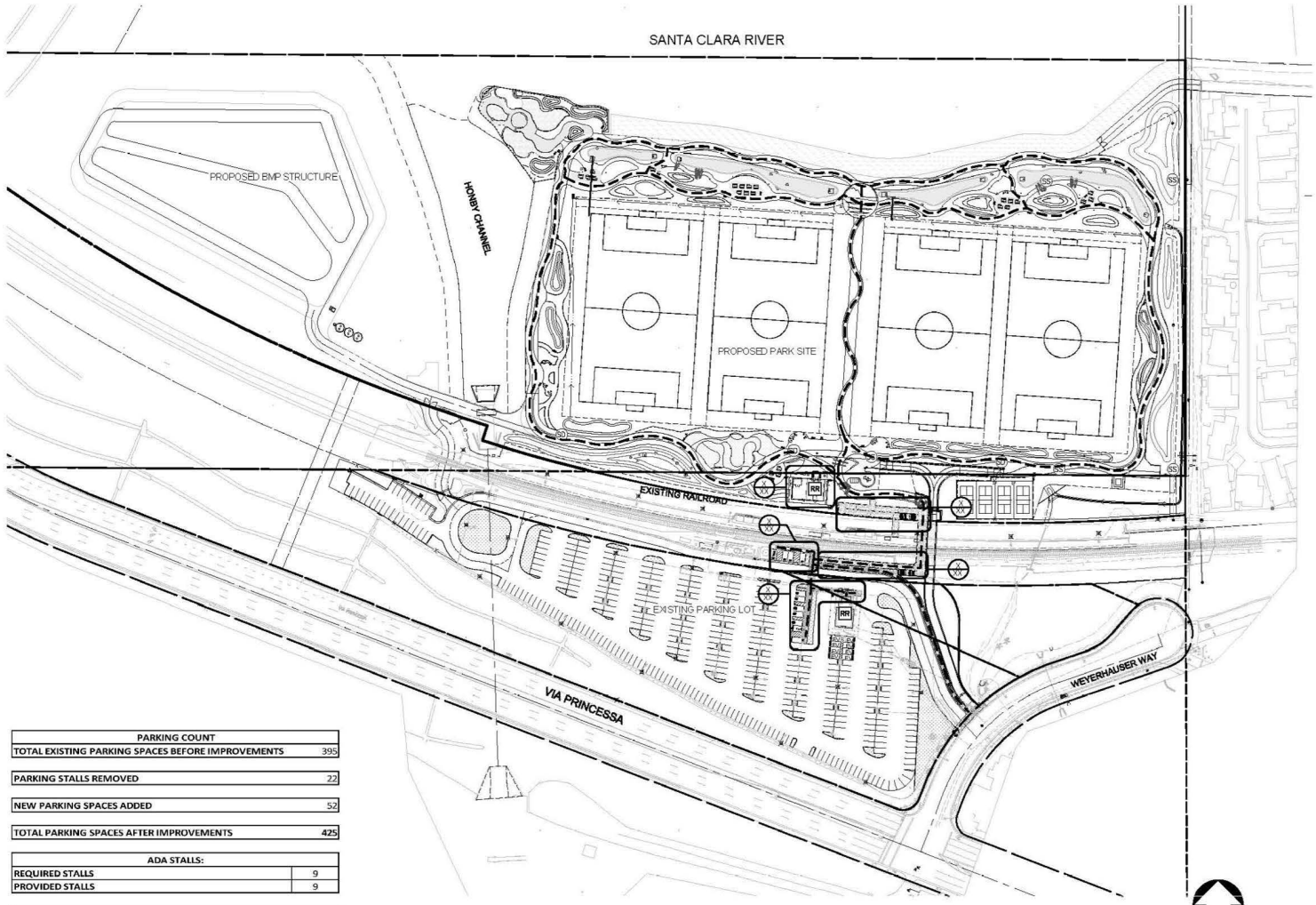
HELIX Environmental Planning

Aerial Photograph

Figure 3



PARKING COUNT	
TOTAL EXISTING PARKING SPACES BEFORE IMPROVEMENTS	395
PARKING STALLS REMOVED	22
NEW PARKING SPACES ADDED	52
TOTAL PARKING SPACES AFTER IMPROVEMENTS	425

ADA STALLS:	
REQUIRED STALLS	9
PROVIDED STALLS	9

EV STALLS:	
EV CAPABLE SPACES PROVIDED	10
EV CHARGERS INSTALLED	3

CITY OF SANTA CLARITA
APPROVED
FOR
GRADING AND DRAINAGE
UNDER TITLE 17
UNIFIED DEVELOPMENT CODE

BY: _____

DATE: _____

THIS SET OF PLANS AND SPECIFICATION MUST BE KEPT ON THE JOB AT ALL TIMES. IT IS UNLAWFUL TO MAKE ANY CHANGES OR ALTERNATIONS ON SAME WITHOUT WRITTEN PERMISSION FROM THE ENGINEERING SERVICES DIVISION.

THE STAMPING OF THESE PLANS AND SPECIFICATIONS SHALL NOT BE USED AS A SUBSTITUTE FOR PERMIT OR MEANT AS AN APPROVAL OF ANY VIOLATION OF THE PROVISIONS OF ANY CITY OR COUNTRY ORDINANCE OR STATE LAW.

DIGALERT DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

PLANS PREPARED FOR:
CITY OF SANTA CLARITA
23920 VALENCIA BLVD., SUITE 300
SANTA CLARITA, CA 91355
(661) 255-4942

PLANS PREPARED BY:
PSOMAS
27220 Turnberry Lane , Suite 180
Valencia, CA 91355
(661) 219-8000 (661) 775-2718 fax
www.psomas.com

PLANS PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER JEREMY A. ALLEN No. C71475 Exp. 12-31-23 CIVIL STATE OF CALIFORNIA

IN ACCORDANCE WITH RESOLUTION No. 19-6, AS A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CLARITA DELEGATION DISCRETIONARY AUTHORITY TO THE DIRECTOR OF PUBLIC WORKS, DIRECTOR OF RECREATION AND COMMUNITY SERVICES, DIRECTOR OF NEIGHBORHOOD SERVICES, CITY ENGINEER, AND ASSISTANT CITY ENGINEERS TO APPROVE PLANS AND DESIGNS FOR THE CONSTRUCTION OF CR IMPROVEMENTS TO PUBLIC PROPERTY FOR PURPOSES OF DESIGN IMMUNITY PURSUANT TO GOVERNMENT CODE SECTION 830.6 FOR THE CITY OF SANTA CLARITA, I DO HEREBY EXERCISE THE MODIFICATION TO THE PLAN OR DESIGN, OR A CONSTRUCTION OF, OR AN IMPROVEMENT TO THE PUBLIC FACILITY, STRUCTURE, OR PROPERTY TO WHICH THIS

REVISION	REVISED BY	APPROVED BY	DATE

CITY OF SANTA CLARITA
VIA PRINCESSA PARK
ACCESSIBILITY SITE PLAN

SCALE: AS SHOWN
DATE: 08/2023
JOB NO. 1SAN271102
SHEET: G-0.10

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Source:Psomas, 2023

HELIX Environmental Planning

Site Plan

Figure 4

jurisdictional limits regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. A tree survey was also performed.

2.3.1 General Biological Survey

HELIX Biologist Daniel Torres conducted a general biological survey of the project site on November 14 and 15, 2022. Vegetation communities were classified and mapped in accordance with MCV (Sawyer et al. 2009), with additional vegetation community and land use information taken from Oberbauer (1996). Vegetation was mapped on a 180-foot (1 inch = 180 feet) aerial photograph of the project site. Vegetation communities were mapped by HELIX to one-hundredth of an acre (0.01 acre). The entire site was surveyed on foot with the aid of binoculars. Representative photographs of the site were taken, with select photographs included in this report as Appendix C, *Representative Site Photographs*. Plant and animal species observed or otherwise detected were recorded in field notebooks. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs.

2.3.2 Rare Plant Species Surveys

Rare plants investigated include those that are listed as threatened or endangered by USFWS or CDFW and those afforded a California Rare Plant Rank (CRPR) of 1 through 3 by CNPS (2023b).

Mr. Torres conducted a spring rare plant survey on April 24, 2023, and a summer rare plant survey on July 18, 2023. The surveys were conducted in accordance with published agency guidelines (California Department of Fish and Game [CDFG] 2000, 2009; USFWS 2000) and during the appropriate flowering period to maximize the detection of those rare plant species with the potential to occur on the project site. Survey methods incorporated a combination of meandering transects and focused searches in areas with the greatest potential to support rare plant species with the potential to occur on the project site. If observed, individual rare plants were mapped using a handheld Global Positioning System (GPS) unit.

2.3.3 Crotch's Bumble Bee

The project site supports potentially suitable habitat for Crotch's bumble bee. HELIX's subconsultant Dr. Douglas Yanega, who is a bumble bee expert and Senior Museum Scientist from University of California, Riverside, completed focused surveys on the project site. The survey methods used were generally consistent with guidelines outlined in CDFW's *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023b). Surveys were completed between May 28 and July 30, 2023, which coincided with the active colony flight period for Crotch's bumble bee. The focused survey consisted of four site visits spaced three weeks apart. Meandering transects were walked throughout the project site, during which plant species in bloom were recorded. Because there were very few plant species in bloom, all flowering plants were visited during each site visit. Bee species detected during the surveys were also recorded. The Crotch's bumble bee findings are included as Appendix D, *Crotch's Bumble Bee Focused Survey Report*.

2.3.4 Burrowing Owl

Mr. Torres completed a BUOW habitat assessment within the project site on November 14, 2022, following survey methods described in CDFW's Staff Report on BUOW Mitigation (CDFG 2012). The assessment was completed to identify areas with potential BUOW habitat and eliminate those that did not contain habitat suitable to support the species. Suitable burrows (i.e., greater than approximately four inches [11 centimeters] in height and width and greater than approximately 59 inches [150 centimeters] in depth) and burrow surrogates were recorded using a handheld GPS unit. The assessment was conducted within the project site and included an approximately 500-foot (150-m) buffer zone around the periphery of the project site.

Given that suitable habitat was identified during the habitat assessment, Mr. Torres and HELIX Biologists Taylor Chase, Matthew Dimson, Kacee Morrell, and Cache Tucker completed four surveys conducted between April 10 and July 6, 2023. The focused survey was conducted in accordance with CDFW's Staff Report on BUOW Mitigation (CDFG 2012). The BUOW survey findings are included as Appendix E, *Burrowing Owl Focused Survey Report*.

2.3.5 Least Bell's Vireo

The project site supports potentially suitable LBVI habitat. The focused survey for LBVI were conducted in accordance with the current USFWS survey protocol (2001). Mr. Dimson, Mr. Torres, and Mr. Tucker conducted eight site visits between April 10 and July 28, 2023. The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat while listening for LBVI and viewing birds with the aid of binoculars. The survey route was designed to ensure complete survey coverage of habitat potentially occupied by LBVI, which included 0.86 acre of Fremont cottonwood forest and woodland and mule fat thickets. The LBVI survey findings are documented in a separate letter report included as Appendix F, *Least Bell's Vireo Focused Survey Report*.

2.3.6 Jurisdictional Assessment

Prior to beginning fieldwork, aerial photographs (1 inch = 180 feet), topographic maps (1 inch = 180 feet), USGS quadrangle maps, and National Wetlands Inventory maps (USFWS 2023b) were reviewed to assist in determining the location of potential jurisdictional waters on the project site. HELIX Senior Biologist and Regulatory Specialist Ezekiel Cooley and Regulatory Specialist Jessica Lee conducted the jurisdictional assessment field work on November 14 and 15, 2022. The assessment was conducted to identify and delineate jurisdictional waters potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), RWQCB jurisdiction pursuant to Section 401 of the CWA and/or state law, and streambed habitats potentially subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game (CFG) Code. Data collection was targeted in areas that were deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark, the presence of a bed/bank and streambed associated vegetation, and/or other surface indications of streambed hydrology. The jurisdictional assessment findings are documented in a separate letter report included as Appendix G, *Jurisdictional Delineation Report*.

2.3.7 Tree Survey

Mr. Torres, who is an International Society of Arboriculture Certified Arborist (WE-12249), and Mr. Chase completed tree surveys on December 13 and 15, 2022. The tree survey was performed within the

project site and a 50-foot buffer area that was designated by the City in coordination with the City's Urban Forestry Office (collectively, the tree survey area). The purpose of the survey was to document the presence of: (1) oak trees (*Quercus* spp.) with at least one trunk over six inches in circumference at a point 4.5 feet above natural grade; (2) Heritage Oak Trees, which are oaks that are at least 108 inches in circumference when measured 4.5 feet above the tree's natural grade; and (3) all trees with a diameter of two inches or greater at diameter at breast height (i.e., 4.5 feet above natural grade). Oak trees that meet criteria one and/or two above are protected under the City's Oak Tree Preservation Ordinance (17.51.040; City 2013). The tree survey findings are documented in a separate letter report included as Appendix H, *Tree Survey Report*.

3.0 RESULTS

3.1 ENVIRONMENTAL SETTING

The project site is directly adjacent to the Santa Clara River and was historically used for agriculture (Historic Aerials 2023). The northern portion of the project site is undeveloped and dominated by non-native upland mustard fields. Small patches of native upland habitat include big sagebrush, California buckwheat scrub, and yerba santa scrub. The project site supports the southern bank of the Santa Clara River and two tributaries (Honby Channel and Tributary A), in addition to an unnamed drainage complex (Drainage A and Tributary A1). Riparian and alluvial habitat associated with the drainages include Fremont cottonwood forest and woodland, mule fat thickets, and scale broom scrub. The southern portion of the project site consists of the Via Princessa Metrolink Station and associated parking lot in addition to the railroad tracks that run east-west through the project site.

Elevations on the project site range from approximately 1,368 feet (417 meters) above mean sea level (AMSL) along the northern project boundary to approximately 1,416 feet (432 meters) AMSL in the southeastern corner. Four soil types are mapped on the project site, including Cortina sandy loam (0 to 2 percent slopes), Hanford sandy loam (0 to 2 percent slopes), sandy alluvial land, and Yolo loam (2 to 9 percent slopes). The project site is surrounded by mobile homes and a distribution center to the east and residential homes to the west and south. The Santa Clara River is directly north.

3.2 VEGETATION COMMUNITIES

Thirteen vegetation communities and land uses were mapped on the project site (Table 1, *Vegetation and Land Uses*; Figure 5, *Vegetation and Land Uses*). A brief description of each vegetation community and land use mapped on the project site is provided below. The CDFW CaCodes or Oberbauer Element Codes are provided in parentheses next to each community name. Sensitive habitats pursuant to CDFW's Natural Communities List (2023c) are also identified in Table 1.

Table 1
VEGETATION AND LAND USES

Habitat Type	Acres
Big Sagebrush (CaCode[1] 35.110.02)	0.63
Black Locust Groves (CaCode 79.100.04)	0.07
Developed (O[2] 12000)	9.52
Disturbed (O 11300)	6.17
Disturbed (O 1130)/California Buckwheat Scrub (CaCode 32.040.02)	0.20
Fremont Cottonwood Forest and Woodland (CaCode 61.130.06)[3]	0.46
Mule Fat Thickets (CaCode 63.510.01)	0.42
Riverwash (N/A[4])	0.98
Scale Broom Scrub (CaCode 32.070.00)[3]	1.52
Scale Broom Scrub CaCode 32.070.00/Upland Mustard Fields (CaCode 42.011.05)[3]	0.69
Upland Mustard Fields (CaCode 42.011.05)	15.21
Upland Mustard Fields CaCode 42.011.05/Rubber Rabbitbrush Scrub (CaCode 45.455.01)	1.49
Yerba Santa Scrub (CaCode 37.090.01)	0.41
TOTAL	**37.77**

[1] CDFW CaCodes.
[2] Oberbauer Element Code.
[3] Sensitive habitats pursuant to the California Department of Fish and Wildlife (CDFW) Natural Communities List (2023c).
[4] Not included in the Manual of California Vegetation or Oberbauer.

3.2.1 Big Sagebrush

Big sagebrush comprises mostly soft-woody shrubs usually with bare ground underneath and between the shrubs. This vegetation community occurs on a wide variety of soils and terrain, from rocky, well-drained slopes to fine-textured valley soils with high water tables. Big sagebrush usually occurs at an elevation between 4,000 feet and 9,000 feet in scattered localities within and along the margins of the Mojave and Sonoran deserts, on desert mountain ranges. Great Basin sagebrush (*Artemisia tridentata*) is the dominant plant species.

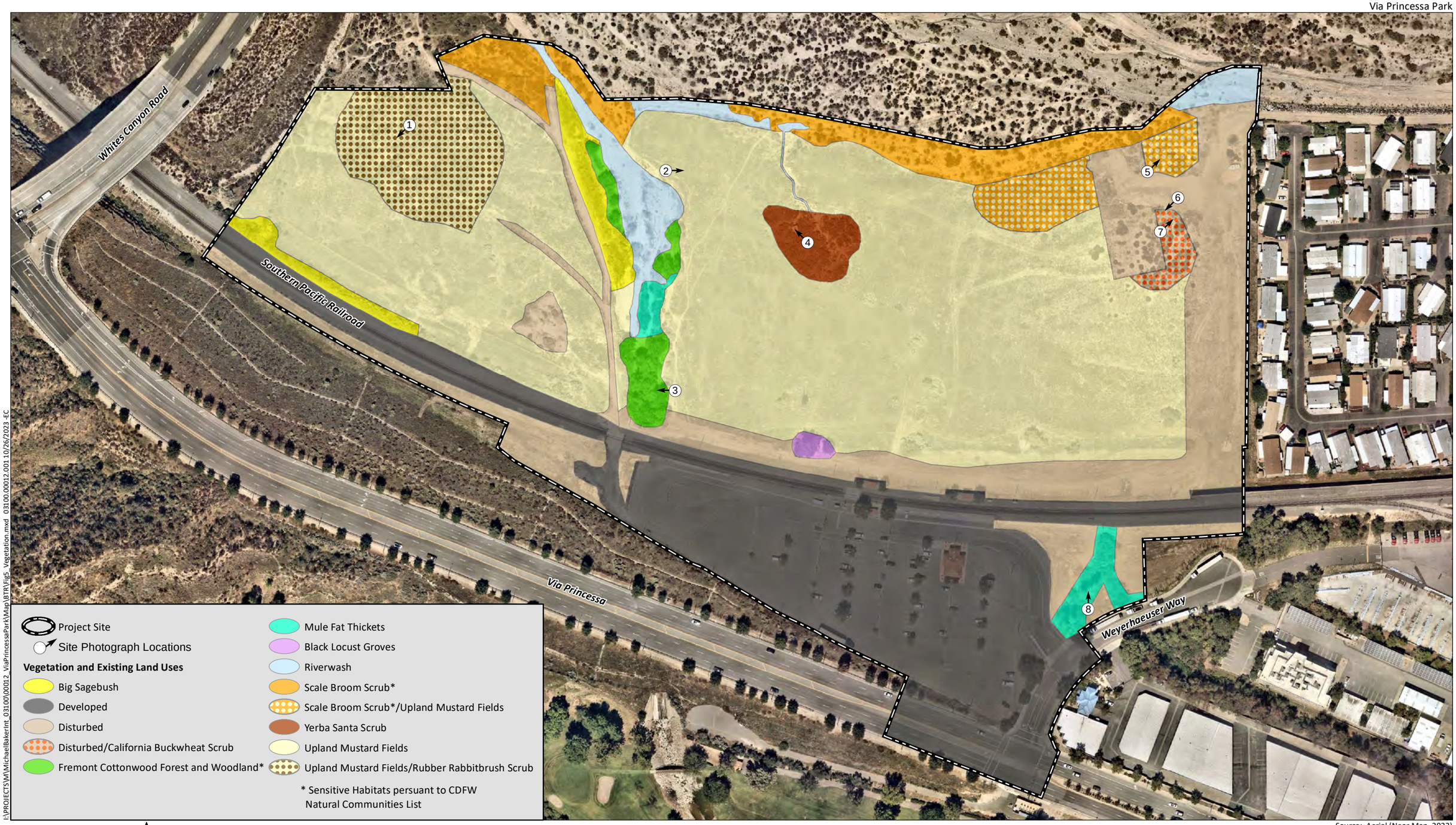
Big sagebrush totaled 0.63 acre and was observed north of the Metrolink railroad in the western portion of the project site and adjacent to the western bank of Honby Channel. This plant community was dominated by big sagebrush with other scattered native shrubs, including coyote brush (*Baccharis pilularis*) and rubber rabbitbrush (*Ericameria nauseosa*). The understory comprised non-native species, including short-pod mustard (*Hirschfeldia incana*) and tocalote (*Centaurea melitensis*).

3.2.2 Black Locust Groves

Black locust grove is characterized as stands of black locust (*Robina pseudoacacia*) and other non-native trees (e.g., acacias [*Acacia* spp.], eucalyptus [*Eucalyptus* spp.], and tree-of-heaven [*Ailanthus altissima*]), many of which are used as windbreaks.

Black locust grove was observed as one small patch in the central-southern portion of the project site, totaling 0.07 acre. This area consisted of five black locust trees (*Robinia pseudoacacia*) and short-pod mustard in the understory.

Via Princessa Park



Project Site

Site Photograph Locations

Vegetation and Existing Land Uses

- Big Sagebush
- Developed
- Disturbed
- Disturbed/California Buckwheat Scrub
- Fremont Cottonwood Forest and Woodland*
- Mule Fat Thickets
- Black Locust Groves
- Riverwash
- Scale Broom Scrub*
- Scale Broom Scrub*/Upland Mustard Fields
- Yerba Santa Scrub
- Upland Mustard Fields
- Upland Mustard Fields/Rubber Rabbitbrush Scrub

* Sensitive Habitats persuant to CDFW Natural Communities List

0 170 Feet

Source: Aerial (Near Map, 2023)

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HELIX Environmental Planning

Vegetation and Land Uses

Figure 5

3.2.3 Developed

Developed land is where existing permanent structures and/or pavement are present, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Existing developed areas include the Metrolink railroad, platforms, and parking lot and paved right-of-way associated with Via Princessa and Weyerhaeuser Way. Developed areas within the project site totaled 9.52 acres.

3.2.4 Disturbed

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or actively maintained or heavily disturbed areas that are mostly unvegetated but may support scattered non-native plant species, such as ornamentals or ruderal exotic species that take advantage of disturbance.

Disturbed habitat was observed throughout the project site, totaling 6.17 acres. These areas were mostly concentrated around the periphery of the southern and eastern portions of the project site. There is an area in the northeastern corner of the project site that is within the active construction zone of the Los Angeles County Sanitation District's Soledad Canyon Relief Trunk Sewer Section 4 Project.

3.2.5 Disturbed/California Buckwheat Scrub

Disturbed/California buckwheat scrub consists mostly of open spaces indicative of disturbed areas (described in Section 3.2.3 above) intermixed with species associated with California buckwheat scrub. California buckwheat scrub occupies xeric sites such as steep slopes, severely drained soils, or clays that slowly release stored soil moisture. It is dominated by subshrubs with leaves that are deciduous during drought, an adaptation that allows the habitat to withstand the prolonged drought period in the summer and fall. Composition varies substantially depending on physical circumstances and the successional status of the vegetation community; however, characteristic species include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), and several species of sage (*Salvia* spp.).

Disturbed/California buckwheat scrub was observed in the northeastern portion of the project site, totaling 0.20 acre. This community consisted of sparse California buckwheat.

3.2.6 Fremont Cottonwood Forest and Woodland

Fremont cottonwood forest is typically dominated by Fremont cottonwood (*Populus fremontii*) with willow species also present. The tree canopy may be open to continuous depending on the site conditions. This plant community is typically found on floodplains, along rivers, seasonally intermittent or perennial steams, or in places with a dependable subsurface water supply.

Fremont cottonwood forest and woodland was observed within Honby Channel, totaling 0.46 acre. This community was dominated by Fremont cottonwood with arroyo willow (*Salix lasiolepis*) present as a subdominant species. Scattered tree-of-heaven was also noted. The understory was mostly unvegetated due to severe scouring. Non-native species observed included common Mediterranean grass (*Schismus barbatus*), giant reed (*Arundo donax*), saltcedar (*Tamarix ramosissima*), and short-pod mustard.

3.2.7 Mule Fat Thickets

Mule fat thickets is a shrubby riparian scrub community dominated by mule fat (*Baccharis salicifolia*) interspersed with small willows. This early seral community is dominated by frequent flooding, the absence of which would lead to cottonwood (*Populus* sp.), or sycamore (*Platanus* sp.) dominated woodland or forest. In some environments, limited hydrology may favor the persistence of mule fat.

Mule fat thickets totaled 0.42 acre and was observed within Honby Channel, Drainage A, and Tributary A1. Mule fat thicket was dominated by mule fat with scattered black willow (*Salix gooddingii*), coyote brush, and black sage (*Salvia mellifera*). Large Mexican fan palms (*Washingtonia robusta*) were observed within Drainage A as well.

3.2.8 Riverwash

Riverwash consists of mostly unvegetated streambed with coarse textured substrate, which ranges from sand to gravel. The coarse-textured substrate is transported and deposited by stream flows.

Riverwash totaled 0.98 acre and was observed in Tributary A and the middle and downstream portions of Honby Channel. Riverwash consisted of mostly bare ground with scattered native species, including annual bur-sage (*Ambrosia acanthicarpa*), sapphire woollystar (*Eriastrum sapphirinum*), and scale broom.

3.2.9 Scale Broom Scrub

Scale broom scrub is an open- to continuous plant community consisting of shrubs less than approximately six feet tall. Scale broom (*Lepidospartum squamatum*) may comprise as little as one percent of the total cover in this plant community. Other species present may include mule fat, California sage brush, brittlebush, California buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*). Scaleboom scrub is found exclusively in alluvial environments.

Scale broom scrub dominated the Santa Clara River and adjacent areas as well as the downstream portion of Honby Channel, totaling 1.52 acres. This community was sparsely vegetated, with scale broom being the most prevalent species. Other native shrub species included California buckwheat and thickleaf yerba santa (*Eriodictyon crassifolium*). Understory species consisted of non-native common Mediterranean grass and short-pod mustard.

3.2.10 Scale Broom Scrub/Upland Mustard Fields

Scale broom scrub/upland mustard fields consists mostly of scale broom scrub (described in Section 3.2.9 above) intermixed with upland mustard fields (described in Section 3.2.11 below).

Scale broom scrub/upland mustard was observed in two small patching in the northeast portion of the project site, totaling 0.69 acre. This community was similar to the scale broom scrub community described above (Section 3.2.9) but was more heavily disturbed and had a high density of non-native short-pod mustard. This community sits approximately five feet above the Santa Clara River, and is not associated with the Santa Clara River floodplain.

3.2.11 Upland Mustard Fields

Upland mustard fields are typically associated with land that has been heavily influenced by human activities, including areas adjacent to roads, manufactured slopes, and abandoned lots. Upland mustard fields are dominated by non-native mustard species (e.g., black mustard [*Brassica nigra*], short-pod mustard) or other similar forb species that take advantage of previously cleared or abandoned landscaping, or land showing signs of past or present animal usage, which removes any capability of providing viable habitat.

Upland mustard fields was the dominant community observed within the project site, totaling 15.21 acres. These areas were dominated by short-pod mustard. Other species observed included California buckwheat, deerweed (*Acmispon glaber*), horehound (*Marrubium vulgare*), and tocalote.

3.2.12 Upland Mustard Fields/Rubber Rabbitbrush Scrub

Upland mustard fields/rubber rabbitbrush scrub consists mostly of upland mustard fields (described in Section 3.2.11 above) intermixed with species associated with rubber rabbitbrush scrub. Rubber rabbitbrush scrub is a shrubby plant community dominated by rubber rabbitbrush. Other shrubs may be co-dominant, such as big basin sagebrush, California buckwheat, ephedra (*Ephedra* sp.), or green rabbitbrush (*Chrysothamnus viscidiflorus*). This plant community occurs on well-drained sandy or gravelly soils and is commonly found in disturbed settings. Disturbed rubber rabbitbrush scrub contains many of the same shrub species as undisturbed rubber rabbitbrush scrub described above, but the shrubs are sparser and are generally surrounded by non-vegetation.

Upland mustard fields/rubber rabbitbrush scrub was observed in the northwestern portion of the project site, totaling 1.49 acres. This plant community was dominated by short-pod mustard, with rubber rabbitbrush scattered throughout. Understory species consisted of non-native common Mediterranean grass and short-pod mustard.

3.2.13 Yerba Santa Scrub

Yerba santa scrub is a shrubby plant community dominated by widely spaced yerba santa (*Eriodictyon* spp.), a sparse to intermittent herbaceous layer, and occasionally emergent trees at low cover. Other shrubs may occur at lower densities, such as big basin sagebrush, California buckwheat, California sagebrush, chamise (*Adenostoma fasciculatum*), chaparral yucca (*Hesperoyucca whipplei*), and white sage (*Salvia apiana*). This plant community occurs on lower to upper slopes and ridges and areas with disturbances, such as through clearing, fire, or intermittent flooding. Yerba santa scrub prefers well-drained sandy or gravelly soils.

Yerba santa scrub was observed south of Tributary A in the central portion of the project site, totaling 0.41 acre. This plant community was dominated by thickleaf yerba santa with other scattered native species, including big basin sagebrush, rod wirelettuce (*Stephanomeria virgata*), and slender buckwheat (*Eriogonum gracile*).

3.3 PLANTS

HELIX identified 103 plant species within the project site during biological surveys, of which 41 (40 percent) were non-native species (Appendix A).

3.4 ANIMALS

HELIX and Dr. Yanega identified 70 animal species within the project site during biological surveys, including 18 insects, one reptile species, 46 bird species, and five mammal species (Appendix B).

3.5 SENSITIVE BIOLOGICAL RESOURCES

3.5.1 Rare Plant Species

Rare plant species are uncommon or limited in that they: (1) are only found in the Santa Clarita region; (2) are a local representative of a species or association of species not otherwise found in the region; or (3) are severely depleted within their ranges or within the region. Rare plant species include those species listed by CNPS with a CRPR of 1, 2, or 3 or federally and state listed endangered and threatened species. Species with CRPR of 4 may be considered rare if a population is locally uncommon, at the periphery of the species' range, sustained heavy losses, shows unusual morphology, or occurs on unusual substrates (CNPS 2023b). Focused surveys concentrated on the identification of CRPR 1, 2, and 3 species.

Twenty-two rare plant species were recorded within the nine-quadrangle database search conducted on CNDDB (CDFW 2023a) and CNPS (2023a). These species are included in Appendix I, *Rare Plant Species Potential to Occur.* Of the 22 rare plant species recorded within the vicinity of the project site, 19 species were considered to have no potential to occur on the project site based on elevation range and/or lack of suitable habitat on the project site. The remaining three species were considered to have a potential to occur on the project site, primarily based on the presence of riparian and alluvial scrub and sandy, gravely soils (see Appendix I). These species include Nevin's barberry (*Berberis nevinii*), slender-horned spineflower (*Dodecahema leptoceras*), and white rabbit-tobacco (*Pseudognaphalium leucocephalum*).

Spring and summer rare plant surveys were conducted on April 24 and July 18, 2023, respectively. The 2023 Water Year was an above-average year for rainfall in the region (40-50 inches; National Oceanic and Atmospheric Administration 2023), which provided ideal conditions for detecting rare plant species if present. Nevin's barberry, slender-horned spineflower, and white rabbit-tobacco were not observed during the rare plant surveys and are therefore presumed to be absent from the project site.

3.5.2 Sensitive Animal Species

Sensitive animal species include federally and state listed endangered and threatened species, candidate species for listing by USFWS or CDFW, and/or are species of special concern (SSC) pursuant to CDFW.

Thirty-nine sensitive animal species were recorded within the nine-quadrangle database search conducted on CNDDB (CDFW 2023a). These species are included in Appendix J, *Sensitive Animal Species Potential to Occur.* An evaluation of each sensitive animal species' potential to occur on the project site is also provided in Appendix J and discussed in further detail below.

No Potential to Occur

Of the 39 sensitive animal species recorded within the vicinity of the project site, 25 species were considered to have no potential to occur on the project site due to lack of suitable habitat and/or the inability to disperse into the project site. These species include American badger (*Taxidea taxus*), arroyo

chub (*Gila orcuttii*), arroyo toad (*Anaxyrus californicus*), California leaf-nosed bat (*Macrotus californicus*), California red-legged frog (*Rana draytonii*), Coast Range newt (*Taricha torosa*), coastal California gnatcatcher (*Polioptila californica californica*), grasshopper sparrow (*Ammodramus savannarum*), monarch butterfly – California overwintering population (*Danaus plexippus plexippus pop. 1*), Quino checkerspot butterfly (*Euphydryas editha quino*), San Diego desert woodrat (*Neotoma lepida intermedia*), Santa Ana speckled dace (*Rhinichthys osculus* ssp. 8), Santa Ana sucker (*Catostomus santaanae*), South Coast marsh vole (*Microtus californicus stephensi*), southern mountain yellow-legged frog (*Rana muscosa*), southwestern willow flycatcher (*Empidonax traillii extimus*), spotted bat (*Euderma maculatum*), Townsend's big-eared bat (*Corynorhinus townsendii*), tricolored blackbird (*Agelaius tricolor*), two-striped gartersnake (*Thamnophis hammondii*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), western pond turtle (*Emys marmorata*), western spadefoot (*Spea hammondii*), and yellow-billed cuckoo (*Coccyzus americanus occidentalis*).

Unarmored threespine stickleback is known to occur in the Santa Clara River. However, the portion of the Santa Clara River that occurs along the northern project boundary is a dry gap that covers approximately 10 miles, extending between Saugus and Lang. This dry gap of the Santa Clara River no longer supports this species (Richmond et al. 2014). The project site is in the central portion of the dry gap. Unarmored threespine stickleback adults prefer slow-moving streams with a constant flow of water but will occupy faster moving water if algal mats or other forms of protection are available (USFWS 2009). Unarmored threespine stickleback require sheltered pools at least 15 inches in depth with dense aquatic vegetation for breeding, which the project site does not support.

Low Potential to Occur

Six species were determined to have a low potential to occur on the project site based on the presence of low-quality habitat, limited acreage of habitat, and lack of recent observations within the immediate vicinity of the project site, which include California glossy snake (*Arizona elegans occidentalis*), pallid bat (*Antrozous pallidus*), southern grasshopper mouse (*Onychomys torridus ramona*), Swainson's hawk (*Buteo swainsoni*; foraging only), western mastiff bat (*Eumops perotis californicus*; foraging only), and western yellow bat (*Lasiurus xanthinus*). California glossy snake, pallid bat, southern grasshopper mouse, western mastiff bat, and western yellow bat are State SSC. Swainson's hawk is a State threatened species. Although the project site supports potentially suitable foraging habitat for Swainson's hawk, this species is not known to nest in southern California, with the exception of populations in the Antelope Valley in the Mojave Desert (Battistone et al. 2019, Bechard et al. 2020).

Moderate Potential to Occur

Five species were determined to have a moderate potential to occur on the project site based on presence of moderate-quality habitat or recent observations within the immediate vicinity, which include California legless lizard (*Anniella stebbinsi*), coast horned lizard (*Phrynosoma blainvillii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), loggerhead shrike (*Lanius ludovicianus*), and white-tailed kite (*Elanus leucurus*). California legless lizard, coast horned lizard, coastal whiptail, and loggerhead shrike are State SSC. White-tailed kite is a State fully protected species.

Presumed Absent

Crotch's bumble bee, BUOW, and LBVI are presumed absent from the project site due to negative focused surveys that were conducted in 2023. These species are described further below.

Crotch's Bumble Bee

Crotch's bumble bee is a State candidate endangered species. The project site supports potentially suitable foraging and nesting habitat. Dr. Douglas Yanega, a bumble bee expert, conducted focused surveys on the project site between May and July 2023. This species was not observed during the focused surveys or incidentally during other field surveys and is therefore presumed absent from the project site (Appendix D).

Burrowing Owl

BUOW is a State SSC. Potentially suitable habitat was identified during the 2022 habitat assessment, including sparsely vegetated disturbed habitat mapped throughout the project site. Suitable earthen burrows were observed, and focused BUOW surveys were completed between April and July 2023. This species was not observed during the focused surveys or incidentally during other field surveys and is therefore presumed absent from the project site (Appendix E).

Least Bell's Vireo

LBVI is a federal and State endangered species. Potentially suitable habitat consists of approximately 0.86 acre of Fremont cottonwood forest and woodland and mule fat thickets within Honby Channel and Drainage A. A focused survey for LBVI was conducted between April and July 2023. This species was not observed during the focused surveys or incidentally during other field surveys and is therefore presumed absent from the project site (Appendix F).

3.5.3 Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are considered either rare within the region or sensitive by CDFW (2023c). Communities are given a Global and State (S) ranking on a scale of 1 to 5. Communities afforded a rank of 5 are most common while communities with a rank of 1 are considered highly periled. CDFW considers sensitive communities as those with a rank between S1 and S3.

The project site supports two sensitive plant communities, Fremont cottonwood forest and woodland and scale broom scrub (including scale broom scrub/upland mustard fields). Approximately 0.46 acre of Fremont cottonwood forest and woodland, 1.52 acres of scale broom scrub, and 0.69 acre of scale broom scrub/upland mustard fields were mapped on the project site (Figure 5).

3.5.4 Jurisdictional Waters and Wetlands

Based on the results of the jurisdictional delineation, the project site supports a portion of the Santa Clara River and two tributaries (Honby Channel and Tributary A). The project site also supports an unnamed drainage complex (Drainage A and Tributary A1). The project site supports approximately 2.086 acres of USACE waters of the U.S., 2.139 acres of RWQCB waters of the State, and 3.269 acres of CDFW streambed and associated vegetation (Figure 6, *Jurisdictional Features*; Table 2, *Existing*

Via Princessa Park

Whites Canyon Road

Santa Clara River

Honby Channel

Tributary A

Southern Pacific Railroad

Drainage A

Tributary A1

Weyerhaeuser Way

Via Princessa

SP1 SP2 SP3 SP4 SP5

Inset Map

SP1 SP2 SP3 SP4 SP5

1

0 75 Feet

Project Site

Soil Pit Locations

Pipe

Jurisdictional Features

RWQCB Jurisdiction

USACE/RWQCB Jurisdiction

Wetland

CDFW Jurisdiction

0 170 Feet

N

Source: Aerial (Near Map, 2023)

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HELIX Environmental Planning

Jurisdictional Features

Figure 6

Jurisdictional Features). A small area in the upstream portion of Honby Channel was identified as wetlands (0.030 acre). The drainage features are described in a separate report included as Appendix G.

Table 2
EXISTING JURISDICTIONAL FEATURES[1]

Drainage	USACE (acres)[2]	RWQCB (acres)[2]	CDFW (acres)[2,4]
Santa Clara River	1.115	1.115	1.355
Honby Channel	0.956 (0.030)[3]	0.956 (0.030)[3]	1.615
Tributary A	0.015	0.015	0.030
Drainage A	0.000	0.049	0.229
Tributary A1	0.000	0.004	0.040
TOTAL	**2.086 (0.030)[3]**	**2.139 (0.030)[3]**	**3.269**

1 Jurisdictional acreages overlap and are not additive (e.g., USACE/RWQCB acreages are included in the CDFW acreages).
2 Acreages are rounded to the nearest thousandth of an acre.
3 Acreages in parentheses indicate jurisdictional acreages that were identified as a three-parameter wetland. Wetland acreages are a subset of the total acreage and are not additive.
4 Acreages are for streambed and associated riparian vegetation.

3.5.5 Habitat and Wildlife Corridor Evaluation

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Animals use these corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations.

Regionally, the project site is situated adjacent to the upper reaches of the Santa Clara River, approximately 4.7 miles upstream of Bouquet Canyon and 0.5 mile downstream of Mint Canyon. The project site is located roughly 1.25 miles northwest of Golden Valley Ranch Open Space and 1.90 miles north of Angeles National Forest, although existing development separates the project site from these open space areas. The project site is surrounded by development except for the northern portion of the project site, which directly abuts the Santa Clara River. Native habitat within the project site is patchy and is mostly associated with Honby Channel and the Santa Clara River. The project site is within the Santa Clara River Significant Ecological Area (see Section 4.3.2 below).

As previously described, corridors can be local or regional in scale. The project site is not considered a regional corridor given that it does not directly connect two or more large blocks of habitat that would otherwise be fragmented or isolated from one another. The areas immediately adjacent to the project site are highly urbanized, including mobile homes and a distribution center to the east and residential homes to the west and south. Wildlife access to the project site may occur from the north via the Santa Clara River and from the south via Honby Channel. Movement from the south is restricted by existing development that surrounds the upstream portion of Honby Channel, which mostly consists of a concrete channel that meanders through a residential community and golf course. Access to the project site from the south is also constrained due to an underground culvert that runs underneath Via

Princessa for approximately 465 feet. Whites Canyon Road restricts wildlife movement from the west and existing development restricts movement from the east.

While the project site is not considered a regional wildlife movement corridor, the Santa Clara River is a regional wildlife movement corridor. The project site may provide adjacent habitat for wildlife moving through the Santa Clara River. The project site also provides habitat for local wildlife that are moving shorter distances throughout the area, such as common mammals that are adapted to human disturbance (e.g., raccoon [*Procyon lotor*], skunk [*Mephitis* sp.], cottontail rabbits [*Sylvilagus* spp.], and coyote [*Canis latrans*]). Birds species may fly over surrounding development to nest and/or forage within project site. As discussed above, the project site supports opportunities for local wildlife movement and provides adjacent habitat for regional wildlife movement through the Santa Clara River, but the project site does not function as a wildlife corridor given that it does not directly connect to two or more blocks of large habitat.

3.5.6 Tree Survey

Five oak trees that meet the City's definition of a protected tree were recorded within the tree survey area, including four coast live oaks (*Quercus agrifolia*) and one interior live oak (*Quercus wislizeni*) within the existing Metrolink parking lot in the southeast portion of the project site (Figure 7, *Oak Tree Locations*). These trees are not considered Heritage Oak Trees, and no other oak trees were observed within the tree survey area. Eighty-seven trees that are not protected under the City's Ordinance were also recorded within the tree survey area. The detailed report findings are included as Appendix H. After the survey was completed, the project site was expanded to include Via Princessa and Weyerhaeuser Way right-of-way. There are coast live oaks on the north and south side of Via Princessa that were not included in the survey, but will not be impacted by the project (see Section 5.5.1 below).

4.0 REGIONAL AND REGULATORY CONTEXT

Biological resources located within the project site are subject to regulatory review by federal, state, and local agencies. Biological resources-related laws and regulations that apply to the project include the Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, CESA, and CFG Code.

4.1 FEDERAL REGULATIONS

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species identified as being endangered or threatened with extinction. The FESA prohibits unauthorized "take" of endangered wildlife species, and this prohibition is extended by regulation to many threatened wildlife species. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns, including habitat modification that results in harm to members of a listed wildlife species.

Section 7 of the FESA requires federal agencies to ensure their actions do not jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify critical habitat that

Via Princessa Park

Inset Map

0 50 Feet

Whites Canyon Road

Southern Pacific Railroad

Via Princessa

Weyerhaeuser Way

Project Site

Protected Zone

Oak Tree Locations

Quercus agrifolia

Quercus wislizeni

0 150 Feet

Source: Aerial (SanGIS, 2014); Zoning (SanGIS 10/2016)

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HELIX Environmental Planning

Oak Tree Locations

Figure 7

has been designated for such species (see below). Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species or critical habitat and requires a biological assessment for any major construction activity that may affect listed species. Under Section 7, take can be authorized via a biological opinion issued by the USFWS for non-marine related listed species issues. Among other examples, the USACE must engage in Section 7 consultation if its issuance of a Section 404 permit may affect listed species. Section 10(a) of the FESA allows the issuance of permits, including to non-federal actors, for "incidental" take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity.

As described by the FESA, critical habitat is the geographic area occupied by a threatened or endangered species essential to species conservation that may require special management considerations or protection. Critical habitat also may include specific areas not occupied by the species but that have been determined to be essential for species conservation. Critical habitat must be designated by the USFWS or National Marine Fisheries Service (depending on the species) for a particular species, through formal rulemaking.

Critical habitat does not occur on the project site. The nearest critical habitat to the project site is for coastal California gnatcatcher, which is approximately one mile southeast (USFWS 2023a).

4.1.2 Federal Clean Water Act

Federal regulation of aquatic resources (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S., including wetlands and vernal pools, is overseen by USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. Individual Permits typically require substantial time to review and approve, while Nationwide Permits are pre-approved if a project meets the appropriate conditions but may require notification to, and verification by, the USACE before impacts are authorized. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board (SWRCB), must be issued prior to any 404 Permit. Waste Discharge Requirements must be obtained for impacts to non-federal waters through preparation and submittal of a SWRCB Report of Waste Discharge.

4.1.3 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season, which is generally defined as February 15 to August 31 for songbirds. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests, which the nesting season is generally defined as February 15 through August 31 for songbirds and January 1 to August 31 for raptors.

4.2 STATE REGULATIONS

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The CESA is similar to the FESA in that it contains a process for the listing of species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes, or to issue permits authorizing take of listed species incidental to otherwise lawful activities.

The Native Plant Protection Act (NPPA) preceded the CESA, and enacted a process by which plants are listed as rare or endangered. The NPPA regulates the collection, transport, and commerce of plants that are listed thereunder. The CESA follows the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the CESA.

4.2.3 California Fish and Game Code

4.2.3.1 Protection of Raptor Species

Raptors (birds of prey) and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

4.2.3.2 Streambed Alteration Agreement

The CFG Code (Section 1600 et seq.) requires a Streambed Alteration Agreement with the CDFW for activities that would alter the bed or banks, or divert or obstruct the flow, of any stream. CDFW typically asserts that a Streambed Alteration Agreement is required for projects affecting riparian and wetland habitat.

4.3 LOCAL REGULATIONS

4.3.1 Oak Tree Protection

The City has implemented regulatory measures to protect and preserve oak trees that occur within the City's jurisdiction. The City's Oak Tree Preservation ordinance states, "No person shall cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak tree on any public or private property within the City" (City 2013). The protected zone of the oak tree includes the area within five feet of the dripline (canopy extent), but no less than 15 feet from the trunk. Encroachment is defined as intrusion into the protected zone of an oak tree, which includes but is not limited to intrusion by trenching, paving, pruning, dumping, parking of commercial vehicles. Major encroachment is defined

by the City as "an area between the outer edge of the trunk and fifty percent of the diameter of the protected zone" and minor encroachment is defined as an area between the outermost edge of the protected zone and fifty percent of the diameter of the protected zone" (2013).

To remove any oak tree or to subject its protected zone to major encroachment, an Oak Tree Permit must be obtained. Trees subject to the permit include all oak trees in the genus *Quercus* that exceed six inches in circumference when measured at 4.5 feet above the tree's natural grade. Heritage Oak Trees are given special consideration and may be fully protected or subject to requirements stricter than those of a standard protected oak tree. A Heritage Oak Tree is defined as any oak tree measuring 108 inches in circumference measured at 4.5 feet above the tree's natural grade. In the case of trees with multiple trunks, two or more trunks must measure 72 inches each or greater in circumference when measured at 4.5 feet above the tree's natural grade.

To obtain an Oak Tree Permit, an application must be submitted to the City Manager or designated representative ("Director") and a filing fee as established by the City Council must be paid. The conditions of the Oak Tree Permit will require native oak trees at a minimum of 24-inch box size to be planted for each protected oak tree removed and for each tree whose protected zone will be subject to major encroachment. Minor encroachment does not require mitigation, but a number of protection measures are required during construction as outlined in Section VII. Standards for Performance of Permitted Work of the Oak Tree Preservation Guidelines (City 1990). The number of replacement trees required is dependent upon the circumference of the tree to be impacted, which are described in Subsection B of the Oak Tree Preservation Ordinance. For those trees with multiple stems, the average circumference was used to determine the number of replacement trees.

4.3.2 Significant Ecological Area Overlay

The project site is located within the City's Santa Clara River Significant Ecological Area (SEA) overlay zone and would require compliance with Santa Clarita Unified Development Code Section 17.38.080. This overlay is intended to preserve the SEA for the public health, safety, and welfare for the long-term benefit of the community, maintenance of the unique visual characteristics, resources, and ridgeline integrity, and to achieve a higher quality of life for its residents. In general, the purpose of the overlay zone shall be to minimize the intrusion and impacts of development in these areas with sufficient controls to adequately protect the resources.

5.0 PROJECT EFFECTS

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes, and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

The significance of impacts to biological resources present, or those with the potential to occur, was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact could be potentially significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally

stable population in the region but declining elsewhere) could sustain some impact with a less than significant effect.

5.1 SENSITIVE SPECIES

5.1.1 Rare Plant Species

No Impacts

Nineteen of the 22 rare plant species recorded within the nine-quadrangle database search were not considered to have a potential to occur within the project site based on elevation range and/or lack of suitable habitat (see Appendix I). The remaining three species were considered to have the potential to occur on the project site primarily based on the presence of sandy and gravelly soils. Rare plant surveys were conducted in April and July 2023. Nevin's barberry, slender-horned spineflower, and white-rabbit tobacco were not observed on the project site during the rare plant surveys. Therefore, these species are presumed to be absent from the project site.

5.1.2 Sensitive Animal Species

Less than Significant Impacts with Mitigation Incorporated

Of the 39 sensitive animal species recorded within the vicinity of the project site, 25 species were considered to have no potential to occur on the project site due to lack of suitable habitat and/or the inability to disperse into the project site (Appendix J). Of the remaining 14 species, six species have a low potential to occur, five species have a moderate potential to occur, and three species are presumed to be absent. These species are discussed in further detail below.

Low Potential Species

Six species were determined to have a low potential to occur on the project site based on the presence of low-quality habitat, limited acreage of habitat, and lack of recent observations within the immediate vicinity of the project site. These species include California glossy snake, pallid bat, southern grasshopper mouse, Swainson's hawk (foraging only), western mastiff bat (foraging only), and western yellow bat. California glossy snake and southern grasshopper mouse are SSC. There are some patchy potentially suitable habitat present (i.e., friable soils within coastal scrub and chaparral habitats). However, the species records within the vicinity of the project site (5- to 10-mile radius) are from between the 1930s and 1950s, indicating that regionally significant populations of these species are not present. Swainson's hawk is State threatened species. Although the project site supports potentially suitable foraging habitat for Swainson's hawk, this species is not known to nest in southern California, with the exception of populations in the Antelope Valley in the Mojave Desert (Battistone et al. 2019, Bechard et al. 2020). Western mastiff bat is a State SSC. Western mastiff bat may use the project site for foraging habitat given it uses a variety of habitats. Although there is a potentially suitable foraging habitat for the western mastiff bat, there is no suitable roosting habitat (i.e., vertical cliff faces) on the project site. Loss of potentially suitable foraging habitat for Swainson's hawk and western mastiff bat within the project site would not result in a significant impact to these species since suitable foraging habitat would remain throughout the Santa Clara River adjacent to and within the vicinity of the project site. Impacts to California glossy snake, southern grasshopper mouse, Swainson's hawk, and western mastiff bat would be less than significant; therefore, no mitigation is warranted for these species.

Western yellow bat roosts in trees, particularly in palms and cottonwoods. Honby Channel and Drainage A support palms and cottonwoods. Pallid bats commonly roost in bridges, buildings, tree bark, and tree cavities. The culvert crossing over Honby Channel within the central-southern portion of the project site and Whites Canyon Road bridge crossing over the Santa Clara River adjacent to the western project site boundary support potentially suitable roosting habitat. The project site also provides potentially suitable foraging habitat (grasslands, shrublands, and woodlands). If construction occurs during the maternity roosting season, pre-construction surveys will be conducted as outlined in mitigation measure BIO-1. Additional avoidance and minimization measures would be required if maternity roosts are identified, as outlined in mitigation measure BIO-1. Implementation of mitigation measure BIO-1 would reduce potential impacts to a less than significant level. Loss of potentially suitable foraging habitat within the project site would not result in a significant impact to this species since suitable foraging habitat is located throughout the Santa Clara River and Honby Channel, which will be revegetated after construction activities are completed.

Moderate Potential Species

Five species were determined to have a low potential to occur on the project site based on presence of moderate-quality habitat or recent observations within the immediate vicinity. These species include California legless lizard, coast horned lizard, coastal whiptail, loggerhead shrike, and white-tailed kite. Coast horned lizard and coastal whiptail are State SSC. These reptile species are highly mobile, and if present, would be expected to disperse to areas outside of the project footprint, such as the Santa Clara River. Displacement or loss of a few individuals, if present, would not be expected to reduce regional population numbers; therefore, no mitigation is warranted for these species.

California legless lizard, which is State SSC, was determined to have a moderate potential to occur on the project site based on the presence of potentially suitable habitat within Honby Channel and recent observations within the immediate vicinity. This species is fossorial and would not easily disperse from the project site during construction activities. As detailed in mitigation measure BIO-2, a pre-construction survey will be completed by a qualified biologist no more than 14 days prior to construction within the project site. If the pre-construction survey is negative, no further measures will be required. If southern California legless lizards are encountered during the survey, a qualified biologist with an appropriate Scientific Collecting Permit would relocate individuals to suitable habitat outside of the project footprint.

Loggerhead shrike is a State SSC and white-tailed kite is a State fully protected species. These species are protected under MBTA regulations, which is addressed in Section 5.4.2 below. Loss of potentially suitable nesting and foraging habitat for loggerhead shrike and white-tailed kite within the project site would not result in a significant impact to these species given that suitable habitat would remain throughout the Santa Clara River adjacent to and within the vicinity of the project site.

Presumed Absent Species

Crotch's Bumble Bee

Crotch's bumble bee is a State candidate endangered species. The project site supports potentially suitable habitat for this species. No Crotch's bumble bees were observed during 2023 focused surveys (Appendix D). Dr. Yanega noted two Africanized honeybee (*Apis mellifera*) hives within the project site, which may outcompete bumble bees for nectar sources. As detailed in mitigation measure BIO-3

included in Section 6.0 below, a pre-construction survey for Crotch's bumble bee queens, gynes, and colonies will be completed by a qualified biologist if construction activities occur during the flight season (February 1 through October 31). If the pre-construction survey is negative, no further measures will be required. If Crotch's bumble bee is detected during the survey, then such direct impacts could be considered significant without mitigation and would require additional avoidance, minimization, and conservation measure prescribed by mitigation measure BIO-3 to help ensure impacts to this species would be reduced to less than significant effects. Further, any effects to this listed species would require consultation with CDFW, and, if take of Crotch's bumble bee is expected, the project must obtain an Incidental Take Permit pursuant to CFG Code 2081 (b). Direct impacts/loss of occupied habitat for this species would be mitigated by the implementation of mitigation measure BIO-3.

Burrowing Owl

BUOW is a State SSC. Potentially suitable BUOW habitat was identified during the habitat assessment, including sparsely vegetated disturbed habitat mapped throughout the project site. Suitable earthen burrows were also observed within the project site. BUOW was not detected during the 2023 focused surveys (Appendix E). Therefore, the project site does not currently support BUOW. As detailed in mitigation measure BIO-4, take avoidance surveys must be completed 14 days or more prior to construction activities to determine whether BUOWs have colonized the site. The take avoidance survey must be repeated 24 hours prior to commencing construction activities. If take avoidance surveys are negative, no further measures would be required. If BUOW(s) is detected during take avoidance surveys, mitigation measure BIO-4 requires preparation of a BUOW Protection and Relocation Plan, which must be approved by CDFW prior to commencing project construction. With the implementation of mitigation measure BIO-4, the project would not significantly impact BUOW.

Least Bell's Vireo

LBVI is a federally and state endangered species. LBVI was not detected during the 2023 focused surveys (Appendix F); therefore, LBVI is presumed absent from the project site and no mitigation is warranted.

5.2 SENSITIVE VEGETATION COMMUNITIES

5.2.1 California Department of Fish and Wildlife Sensitive Vegetation Communities/Habitats

Less than Significant Impacts with Mitigation Incorporated

The majority of the project site (33.64 acres) supports habitat dominated by non-native species (16.97 acres) and mostly unvegetated developed (9.52 acres), disturbed (6.17 acres), and riverwash (0.98 acre). Native-dominated habitat within the project site totals 4.13 acres, which includes big sagebrush (0.63 acre), Fremont cottonwood forest and woodland (0.46 acre), mule fat thickets (0.42 acre), scale broom scrub (1.52 acres), scale broom scrub/upland mustard fields (0.69 acre), and yerba santa scrub (0.41 acre).

The project would require permanent impacts to 20.12 acres, of which 1.80 acres are native-dominated habitat and 18.32 acres are habitat dominated by non-native species, developed, disturbed, and riverwash (Figure 8, *Vegetation and Land Use Impacts*; Table 3, *Vegetation and Land Use Impacts*).

Via Princessa Park

Whites Canyon Road

Southern Pacific Railroad

Via Princessa

Weyerhaeuser Way

Project Site

Impact Type

Permanent

Temporary

Vegetation and Existing Land Uses

Big Sagebush

Developed

Disturbed

Disturbed/California Buckwheat Scrub

Fremont Cottonwood Forest and Woodland*

Mule Fat Thickets

Black Locust Groves

Riverwash

Scale Broom Scrub*

Scale Broom Scrub*/Upland Mustard Fields

Yerba Santa Scrub

Upland Mustard Fields

Upland Mustard Fields/Rubber Rabbitbrush Scrub

* Sensitive Habitats persuant to CDFW Natural Communities List

0 170 Feet

Source: Aerial (Maxar, 2022)

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Vegetation and Land Use Impacts

Figure 8

Permanent impacts are associated with the proposed park, regional stormwater infiltration facility, buried bank protection along the Santa Clara River and Honby Channel, and culvert improvements.

The project would also require temporary impacts to 10.99 acres, of which 1.80 acres are native-dominated habitat and 9.19 acres are habitat dominated by non-native species, developed, disturbed, and riverwash (Figure 8; Table 3). Temporary impacts are associated with potential over-excavation and equipment access throughout the project site, in addition to grading within Honby Channel to return the system to baseline conditions.

Table 3
VEGETATION AND LAND USE IMPACTS

Habitat Type	Existing (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Big Sagebrush (CaCode[1] 35.110.02)	0.63	0.31	0.07
Black Locust Groves (CaCode 79.100.04)	0.07	0.07	0.00
Developed (O[2] 12000)	9.52	0.17	6.00
Disturbed (O 11300)	6.17	3.83	0.63
Disturbed (O 1130)/California Buckwheat Scrub (CaCode 32.040.02)	0.20	0.20	0.00
Fremont Cottonwood Forest and Woodland (CaCode 61.130.06)[3]	0.46	0.26	0.20
Mule Fat Thickets (CaCode 63.510.01)	0.42	0.01	0.13
Riverwash (N/A[4])	0.98	0.03	0.95
Scale Broom Scrub (CaCode 32.070.00)[3]	1.52	0.18	1.34
Scale Broom Scrub CaCode 32.070.00[3]/Upland Mustard Fields (CaCode 42.011.05)	0.69	0.63	0.06
Upland Mustard Fields (CaCode 42.011.05)	15.21	12.85	1.35
Upland Mustard Fields CaCode 42.011.05/Rubber Rabbitbrush Scrub (CaCode 45.455.01)	1.49	1.17	0.26
Yerba Santa Scrub (CaCode 37.090.01)	0.41	0.41	0.00
TOTAL	**37.77**	**20.12**	**10.99**

1 CDFW CaCodes.
2 Oberbauer Element Code.
3 Sensitive habitats pursuant to the California Department of Fish and Wildlife (CDFW) Natural Communities List (2023c).
4 Not included in the Manual of California Vegetation or Oberbauer.

The project site supports two sensitive plant communities pursuant to CDFW: Fremont cottonwood forest and woodland and scale broom scrub (including scale broom scrub/upland mustard fields). Approximately 0.46 acre of Fremont cottonwood forest and woodland, 1.52 acres of scale broom scrub, and 0.69 acre of scale broom scrub/upland mustard fields were mapped on the project site (Figure 5). The sensitive natural community designation is generally reserved for high-quality habitats, such as those that lack invasive species, do not show signs of human-caused disturbance, and show signs of reproduction (i.e., sprouts and seedlings present). Mitigation for impacts to scale broom scrub/upland mustard fields is not proposed since the habitat is considered low quality and not consistent with the community characteristics that are intended to be protected. This community is located approximately five feet above the Santa Clara River, and is not associated with the Santa Clara River floodplain. The understory is dominated by invasive short-pod mustard, which is likely due to historic disturbance from

ranching activities. Based on the low-quality characteristics of the scale broom scrub/upland mustard fields, permanent impacts (0.63 acre) and temporary impacts (0.06 acre) to this community would be less than significant and no mitigation is proposed.

The project proposes permanent impacts to 0.26 acre of Fremont cottonwood forest and woodland and 0.18 acre of scale broom scrub (Figure 8; Table 3). Fremont cottonwood forest and woodland is consistent with CDFW jurisdiction, which the project will provide mitigation for permanent impacts to 0.26 acre through compensatory mitigation for impacts to CDFW jurisdiction as discussed in Section 5.2.2 and outlined in BIO-6 included in Section 6.0 below. Approximately 0.04 acre of scale broom scrub also falls within CDFW jurisdiction. Impacts to scale broom scrub will be adequately addressed through compensatory streambed mitigation that will be required as part of the Section 1602 Stream Alteration Agreement (see Section 5.2.2 and BIO-6 in Section 6.0). The project will mitigate for permanent impacts to scale broom scrub that occur outside of CDFW jurisdiction (approximately 0.14 acre) through compensatory mitigation as outlined in BIO-5 in Section 6.0 below.

The project proposes temporary impacts to 0.20 acre of Fremont cottonwood forest and woodland and 1.34 acres of scale broom scrub. As part of the Honby Channel restoration, temporary impacts to Fremont cottonwood forest and woodland will be revegetated once the project has been completed (Project Design Feature [PDF]-1). Temporary impacts to scale broom scrub outside of CDFW jurisdiction and within CDFW jurisdiction will be revegetated as appropriate once the project has been completed, as outlined in BIO-5 and BIO-6, respectively.

The project would not significantly impact sensitive vegetation communities, with the implementation of mitigation measures (BIO-5 and BIO-6) and project design feature (PDF-1).

5.2.2 California Department of Fish and Wildlife Riparian Habitat and Streambed

Less than Significant Impacts with Mitigation Incorporated

The project site supports a portion of the Santa Clara River and two tributaries (Honby Channel and Tributary A) in addition to an unnamed drainage complex (Drainage A and Tributary A1). These drainages are considered jurisdictional streambed and riparian vegetation pursuant to Section 1602 of the CFG Code as regulated by CDFW. The project will result in permanent impacts to 0.544 acre and 2.474 acres of temporary impacts to CDFW jurisdictional streambed and associated riparian vegetation (Table 4, *CDFW Jurisdiction Impacts*; Figure 9, *Jurisdictional Feature Impacts*).

Table 4
CDFW JURISDICTION IMPACTS

Drainage	Existing (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Santa Clara River	1.355	0.148	1.207
Honby Channel	1.615	0.363	1.240
Tributary A	0.030	0.027	0.003
Drainage A	0.229	0.006	0.024
Tributary A1	0.040	0.000	0.000
TOTAL	**3.269**	**0.544**	**2.474**

Via Princessa Park

Whites Canyon Road

Santa Clara River

Honby Channel

Tributary A

Southern Pacific Railroad

SP3

SP5

SP4

SP1

SP2

Drainage A

Tributary A1

Weyerhaeuser Way

Via Princessa

Project Site

Soil Pit Locations

Pipe

Impact Type

Permanent

Temporary

Jurisdictional Features

RWQCB Jurisdiction

USACE/RWQCB Jurisdiction

Wetland

CDFW Jurisdiction

0 150 Feet

N

Source: Aerial (Near Map, 2023)

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Jurisdictional Feature Impacts

Figure 9

Permanent impacts are proposed along the periphery of the Santa Clara River and Honby Channel to install buried bank protection, which would protect the banks from erosion up to a 100-year flood event. Backfill soil would be installed over the bank protection, which no portion of the soil cement used for the protection structure would be visible after construction. In Honby Channel, a terrace would be incorporated into the backfill grading to allow vegetation to be installed at the surface, outside of the active flow channel. In addition, permanent impacts within Honby Channel are proposed to remove the existing grouted riprap culvert outlet structure and extend the culvert, which will provide emergency access to the eastern portion of the project site. The majority of Tributary A would be permanently filled as part of the park construction. A small portion of Drainage A would be permanently impacted to install a new culvert underneath the Metrolink railroad.

Temporary impacts to Honby Channel would occur to return the channel to baseline conditions. Honby Channel and the existing culvert have experienced an accumulation of sediment over an approximately 200-foot section of the channel, which has backed up sediment into the existing culvert and reduced the culvert's hydraulic capacity. Temporary impacts to restore the channel to baseline conditions would include removal of accumulated sediment and vegetation and re-grading the channel (PDF-1). As part of the channel restoration, invasive plant species would be removed from Honby Channel, including giant reed, saltcedar, and tree-of-heaven. Temporary impacts to the Santa Clara River and Tributary A include potential over-excavation and equipment access to install the buried bank protection. Temporary impacts to Drainage A include potential over-excavation and equipment access to install the new culvert under the Metrolink railroad. Temporary impacts to CDFW jurisdiction within the Santa Clara River and Drainage A will be revegetated as appropriate once the project has been completed (BIO-6). Tributary A is mostly unvegetated, and therefore, revegetation is not anticipated.

Impacts to CDFW jurisdiction will require a Section 1602 Stream Alteration Agreement, as described in BIO-6, included in Section 6.0 below. Compensatory streambed mitigation for permanent impacts to CDFW jurisdiction will be required as part of subsequent Section 1602 permitting requirements. Impacts to CDFW jurisdiction would not be significant, with compensatory mitigation incorporated. A Water Quality Management Plan and Storm Water Pollution Prevention Program will be prepared, which will include construction and post-project Best Management Practices (BMPs) to help ensure the project does not increase flow rates within the drainages.

5.3 U.S. ARMY CORPS OF ENGINEERS/REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

Less than Significant Impacts with Mitigation Incorporated

The project site supports a portion of the Santa Clara River and two tributaries (Honby Channel and Tributary A), which may be considered jurisdictional streambeds pursuant to the CWA Sections 404 and 401. In addition, there is an unnamed drainage complex (Drainage A and Tributary A1) in the southwestern portion of the project site, which is considered jurisdictional streambed pursuant to the Porter-Cologne Water Quality Act. The project will result in permanent impacts to 0.243 acre of waters of the U.S. and 0.245 acre of waters of the State (Table 5, *USACE/RWQCB Jurisdiction Impacts*; Figure 9). Of these acres, 0.030 acre are considered wetlands waters of the U.S. and State. In addition, the project will require temporary impacts to 1.843 acres of waters of the U.S. and 1.847 acres of waters of the State. Proposed temporary and permanent impact activities within each drainage are consistent with those described in Section 5.2.2 above.

Table 5
USACE/RWQCB JURISDICTION IMPACTS[1]

Drainage	USACE Waters of the U.S.			RWQCB Waters of the State		
	Existing (acres)[2]	Permanent Impacts (acres)[2]	Temporary Impacts (acres)[2]	Existing (acres)[2]	Permanent Impacts (acres)[2]	Temporary Impacts (acres)[2]
Santa Clara River	1.115	0.083	1.032	1.115	0.083	1.032
Honby Channel	0.956 (0.030)[3]	0.146 (0.030)[3]	0.810	0.956 (0.030)[3]	0.146 (0.030)[3]	0.810
Tributary A	0.015	0.014	0.001	0.015	0.014	0.001
Drainage A	0.000	0.000	0.000	0.049	0.002	0.004
Tributary A1	0.000	0.000	0.000	0.004	0.000	0.000
TOTAL	**2.086 (0.030)[3]**	**0.243 (0.030)[3]**	**1.843**	**2.139 (0.030)[3]**	**0.245 (0.030)[3]**	**1.847**

1 Jurisdictional acreages overlap and are not additive (e.g., USACE acreages are included in the RWQCB acreages).
2 Acreages are rounded to the nearest thousandth of an acre.
3 Acreages in parentheses indicate jurisdictional acreages that were identified as a three-parameter wetland. Wetland acreages are a subset of the total acreage and are not additive.

Impacts to USACE jurisdiction will require the issuance of a Section 404 Nationwide Permit and impacts to RWQCB jurisdiction will require a Section 401 Water Quality Certification, as described in BIO-7 included in Section 6.0 below. Waste Discharge Requirements will also be required for impacts to non-federal waters through preparation and submittal of a SWRCB Report of Waste Discharge. Compensatory streambed mitigation for permanent impacts to USACE and RWQCB jurisdiction will be required as part of subsequent Sections 404 and 401 permitting requirements. Impacts to USACE and RWQCB jurisdiction would not be significant, with compensatory mitigation incorporated. As previously discussed in Section 5.2.2 above, temporary impacts within Honby Channel will be restored baseline conditions and riparian habitat within the channel will be expanded (PDF-1). Temporary impact areas within the Santa Clara River and Drainage A will be revegetated as appropriate once the project has been completed (BIO-7). Tributary A is mostly unvegetated, and therefore, revegetation is not anticipated. A Water Quality Management Plan and Storm Water Pollution Prevention Program will be prepared, which will include construction and post-project BMPs to help ensure the project does not increase flow rates within the drainages.

5.4 WILDLIFE MOVEMENT AND MIGRATORY SPECIES

5.4.1 Wildlife Movement

Less than Significant

The project site is adjacent to a regional wildlife corridor (i.e., the Santa Clara River) and provides habitat for local wildlife movement. The project site is not considered a regional wildlife corridor given that it does not directly connect two or more large blocks of habitat that would otherwise be fragmented or isolated from one another. The project site is located at the edge of existing development, which is present east, south, and west of the project site. Development of the project would not impede wildlife movement within the Santa Clara River given the project only proposes bank stabilization along the southern bank. Following project construction, wildlife access to the Santa Clara River from Honby Channel would remain and be improved. Proposed revegetation within Honby Channel after

construction is complete would increase native cover within the drainage and remove non-native and invasive species, expanding the riparian habitat within the channel (PDF-1). The existing culvert at the upstream portion of Honby Channel is filled with approximately three to four feet of sediment. The sediment removal and culvert replacement will increase the culvert height from between three and four feet to eight feet, providing a larger space for wildlife to move through under Via Princessa.

The project would include various sources of new lighting, specifically for the proposed park. For the proposed multipurpose fields, a total of twelve light poles that would range between 60 to 70 feet in height would be installed surrounding the fields. The lighting would be used for limited evening activities with typical operating hours no later than 10 p.m., and would be designed such that the fixtures aim away from the perimeter of the project site to avoid light spillage. Illuminance is typically measured in footcandles, which is illuminance on a one square foot surface from a uniform source of light. Based on the photometric study prepared for the proposed project, the proposed field lights would result in 0.0 foot-candles at the project site boundaries, meaning that there would be no off-site light spillage onto adjacent areas, including the Santa Clara River (Appendix K, *Preliminary Park Lighting Plan*).

The project site supports patches of native upland and riparian vegetation, which provides habitat for local wildlife movement and migratory birds passing through the project site. Some reptiles, small mammals, and occasionally larger mammals may access the project site from the Santa Clara River to the north or Honby Channel to the south. Birds may fly over existing development to access the project site for foraging and/or nesting. Therefore, the project site supports opportunities for local wildlife movement and provides adjacent habitat for regional wildlife movement through the Santa Clara River, but the project site does not serve as a regional wildlife corridor. Although the implementation of the project may result in some temporary disturbance to wildlife movement from construction noise, the project overall would have a less than significant impact to wildlife movement and no mitigation measures would be required.

5.4.2 Migratory Species

Less than Significant Impacts with Mitigation Incorporated

The project site has the potential to support songbird and raptor nests due to the presence of shrubs, ground cover, and trees. Project activities could disturb or destroy active migratory bird nests, including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact. The nesting season is generally defined as February 15 through August 31 for songbirds and January 1 to August 31 for raptors. An avoidance and minimization measure is provided as BIO-8 in Section 6.0 below, which would help ensure the project is compliant with MBTA regulations. Impacts to migratory species would not be significant, with the implementation of BIO-8.

5.5 LOCAL POLICIES AND ORDINANCES

5.5.1 Oak Tree Protection

No Impacts

The project would avoid the four coast live oaks and one interior live oak located in the southeast portion of the project site (Appendix H). The protected zones, which will be avoided by the project, are

shown in Figure 7. After the survey was completed, the project site was expanded to include Via Princessa and Weyerhaeuser Way right-of-way. There are coast live oaks on the north and south side of Via Princessa that were not surveyed. Although the road improvement plans are still being developed, these trees would be avoided by any improvements. Therefore, no mitigation would be required.

5.5.2 Significant Ecological Area Overlay

No Impacts

As discussed in Section 4.3.2 above, the project site is located within the City's Santa Clara River SEA overlay zone intended to preserve the SEA for the public health, safety, and welfare for the long-term benefit of the community, maintenance of the unique visual characteristics, resources, and ridgeline integrity, and to achieve a higher quality of life for its residents. The project is a proposed park that would provide a variety of recreational and exercise opportunities for the long-term health benefit of the community. The project includes a regional infiltration basin to collect and conserve water supplies, which also provides for the long-term welfare and benefit of the community. The parcels to the north of the railroad tracks would be developed with the proposed park and regional stormwater infiltration facility, which would involve a small restroom/office building with large expanses of pervious surfaces in the form of soccer fields and landscaped areas. Honby Channel will be revegetated with native species following project construction (PDF-1). The revegetation will increase native cover within the drainage and remove non-native and invasive species, expanding the riparian habitat within the channel and increasing the functions and values of Honby Channel for wildlife. As a result, the scenic quality of the area would be preserved and native habitat within Honby Channel would be expanded. Temporary impacts within the Santa Clara River and Drainage A will also be revegetated following construction, as appropriate (BIO-6 and BIO-7). As discussed further in Section 6.0 of this report, the project would include measures to protect biological resources. In summary, the project conforms to the SEA overlay zone.

5.6 ADOPTED HABITAT CONSERVATION PLANS

No Impacts

The project site is not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, implementation of the project would not conflict with any adopted habitat conservation plans.

6.0 PROJECT DESIGN FEATURE AND MITIGATION MEASURES

The following provides recommended measures intended to minimize or avoid impacts to biological resources:

PDF-1 **Restoration of Honby Channel:** Following construction, temporary impacts to Honby Channel will be restored in accordance with a Restoration Plan. The Restoration Plan shall include a plant layout, identifying the types, locations, patterns, and densities of suitable native vegetation to be planted. The Restoration Plan shall also include reestablishing contours and features to support vegetation within the channel and

enhance its habitat value. The Plan shall identify irrigation requirements and monitoring frequency for three years until vegetation establishment.

BIO-1 **Sensitive Bat Species:** Due to the presence of potentially suitable habitat (i.e., bridge, culvert crossing, trees) for sensitive bat species, the following avoidance and minimization measures shall be implemented to avoid potential impacts to these species:

Pre-construction Survey: A qualified biologist experienced with bats shall conduct a pre-construction survey within all suitable habitat on the project site to determine whether occupied hibernacula, night roosts, and/or maternity roosts occur within the project site. The pre-construction survey shall be conducted within 30 days prior to commencing construction activities (i.e., earthwork, clearing, grubbing, and fuel modification [including off-site fuel modification on private property]) and shall consist of two separate surveys conducted no more than a week apart. The second and final survey shall be conducted no more than seven days prior to commencing construction activities. The pre-construction surveys shall be conducted using a detector for echolocation calls, such as an Anabat bat detector system. The results of the pre-construction survey shall be documented by the qualified biologist. **If the qualified biologist determines that no sensitive bat maternity roosts are present, the activities shall be allowed to proceed without any further requirements.**

If the qualified biologist determines that big free-tailed bat, pallid bat, and/or western yellow bat maternity roosts are present, the following avoidance and minimization measures shall be implemented:

Maternity Roosts: If occupied maternity roost(s) are identified during the pre-construction survey, no construction activities shall occur within 500 feet during the maternity roosting season (March 1 through September 30) or until a qualified bat biologist determines the roost is no longer active. A qualified biologist shall clearly delineate the 500-foot no work buffer(s), which shall be clearly marked with flags and/or fencing prior to the initiation of construction activities.

Night Roosts and Hibernacula: To the extent feasible, no construction activities shall occur within 500 feet of active night roosts and/or hibernacula. The 500-foot no work buffer shall be left in place until project construction is completed or until a qualified bat biologist determines the roost/hibernaculum is no longer active. No project construction shall occur between 1.5 hours before sunset and 1.5 hours after sunrise.

If avoidance of active night roosts and/or hibernacula is not feasible, the qualified biologist shall prepare a Bat Roost Relocation Plan to remove active night roosts/hibernacula and construct alternative bat roost outside of the work area. The Relocation Plan shall be submitted to CDFW for review prior to construction activities. The qualified biologist shall implement the Relocation Plan and new roost sites shall be constructed before the commencement of any project construction (i.e., earthwork, clearing, grubbing, and fuel modification [including off-site fuel modification on private property]). Removal of roosts will be guided by accepted exclusion and deterrent techniques.

BIO-2 **Southern California Legless Lizard:** Due to the presence of suitable habitat for Southern California legless lizard, a pre-construction survey shall be conducted within suitable habitat (leaf litter with high soil moisture) no more than 14 days prior to soil disturbance. The survey shall be conducted when soil temperatures are between 60- and 70-degrees Fahrenheit, as feasible with timing of construction. A hand rake shall be used to gently search for individuals in loose litter and soil. If southern California legless lizards are encountered, a qualified biologist with an appropriate Scientific Collecting Permit shall relocate individuals to suitable habitat outside of the project footprint.

BIO-3 **Crotch's Bumble Bee:** Due to the presence of suitable habitat for Crotch's bumble within the project site, the following measures shall be implemented to reduce potential impacts to this species:

Pre-construction Survey: To the extent feasible, construction activities (i.e., demolition, earthwork, clearing, and grubbing) shall occur outside of the Crotch's bee flight season (February 1 through October 31). If construction activities must occur during the flight season, a qualified biologist shall conduct a pre-construction survey for Crotch's bumble bee queens, gynes, and colonies. The survey shall be conducted no more than 14 days prior to construction during optimal weather conditions (e.g., warm, sunny days between 65- and 90-degrees Fahrenheit). **If the pre-construction survey is negative, no further assessment shall be required, and construction activities shall be allowed to proceed without any further requirements.**

If Crotch's bumble bee is detected during the pre-construction survey, the measures below shall be implemented. The measures below shall only be required if Crotch's bumble bee remains as a candidate state endangered species or is listed as a state endangered species at the time of project construction. If Crotch's bumble bee is delisted, the measures below shall not be required.

CESA Compliance: Prior to issuance of a grading permit, it shall be demonstrated that CESA-required consultation with CDFW regarding the project's effects to Crotch's bumble bee has occurred, and, if take of Crotch's bumble bee is expected, that CDFW has authorized such take through an incidental take permit, as applicable. In addition, if an incidental take permit is issued for the project that covers Crotch's bumble bee, that document shall supersede any inconsistent measures provided in this report.

Compensatory Mitigation: Compensatory mitigation for permanent direct impacts to suitable Crotch's bumble bee habitat shall be offset through compensatory mitigation, which may include, but is not necessarily limited to, on-site or off-site habitat preservation, enhancement, restoration, and/or creation at a ratio of no less than 1:1. However, if an incidental take permit is issued for the project that covers Crotch's bumble bee, that document(s) shall supersede any measures and mitigation ratios provided in this report.

BIO-4 **Burrowing Owl:** Due to the presence of potentially suitable burrows within the project site, the following measures shall be implemented to reduce potential impacts to this species:

Take Avoidance Surveys: Take avoidance surveys shall be conducted 14 days or more prior to construction activities, and repeated 24 hours prior to construction activities (i.e., demolition, earthwork, clearing, and grubbing) to determine presence of BUOW. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey must be conducted again to confirm BUOW has not colonized the project site since it was last disturbed. **If take avoidance surveys are negative and BUOW is confirmed absent, then ground-disturbing activities shall be allowed to commence, and no further measures shall be required.**

Protection and Relocation Plan: If BUOW(s) is observed during the take avoidance surveys, CDFW will be immediately informed of the observation location(s) and status(es). Active burrows shall be avoided by the project in accordance with the CDFW's Staff Report (CDFG 2012). If avoidance of direct and/or indirect impacts to active burrows is not feasible, a BUOW Protection and Relocation Plan (Plan) shall be prepared by a qualified biologist. The Plan must be approved by CDFW prior to construction activities (i.e., demolition, earthwork, clearing, and grubbing). The Plan shall include measures to minimize indirect impacts to BUOWs during construction, and if direct impacts are unavoidable, the Plan shall provide measures to conserve all nesting, occupied, and satellite burrows and/or BUOW habitat such that the habitat acreage and number of burrows and BUOW individuals impacted are maintained and/or replaced. Further coordination with CDFW shall occur to mitigate for direct loss of habitat through the acquisition, conservation, and management of in-kind habitat. Lands conserved to mitigation for direct impacts shall include: (1) sufficiently large acreage with fossorial mammals present; (2) permanent protection through a conservation easement for the purpose of conserving BUOW habitat and prohibiting activities incompatible with BUOW use; (3) development and implementation of a Mitigation Land Management Plan to address long-term ecological sustainability and maintenance of the site for BUOWs; and (4) funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism, such as an endowment.

BIO-5 **Sensitive Vegetation Communities**: Mitigation for permanent impacts to scale broom scrub that occur outside of CDFW jurisdiction shall occur at a ratio of no less than 1:1 through on-site or off-site habitat preservation, enhancement, restoration, and/or creation. Off-site habitat mitigation shall include purchase of credits at a mitigation bank and/or preservation, enhancement, restoration, and/or creation within existing City or acquired land. Temporary impacts to scale broom scrub outside of CDFW jurisdiction shall be revegetated as appropriate once the project has been completed.

BIO-6 **CDFW Jurisdiction**: Prior to issuance of a grading permit, the City shall obtain a Streambed Alteration Agreement from CDFW. Permanent impacts to CDFW jurisdiction shall be mitigated through: (1) on-site preservation, enhancement, restoration, and/or creation of jurisdictional streambed at a ratio of no less than 2:1; (2) off-site preservation, enhancement, restoration, and/or creation of jurisdictional streambed at

a ratio of no less than 2:1; and/or (3) purchase of credits at an approved mitigation bank at a ratio of no less than 1:1 provided that the mitigation is creation of streambed and has already been successfully implemented. Temporary impact areas within the Santa Clara River and Drainage A shall be addressed in a separate streambed revegetation plan to be reviewed and approved by the resource agencies as part of subsequent regulatory permitting.

BMPs to minimize and avoid impacts to CDFW jurisdiction during and after construction shall be addressed as part in the Streambed Alteration Agreement. Minimization and avoidance measures may include, but are not limited to, the following:

- Construction-related equipment shall be stored in developed/disturbed areas, outside of drainages. No equipment maintenance shall be done within or adjacent to the drainage.
- Mud, silt, spoil sites, raw cement, asphalt, or other pollutants from construction activities shall not be placed within or adjacent to the drainage.
- Open trenches or other excavated areas shall be properly secured at the end of the day to avoid entrapment of animals, or an escape ramp shall be provided.
- To avoid attracting predators during construction, the project shall be kept clean of debris to the extent possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from site.
- Construction personnel shall strictly limit their activities, vehicles, equipment and construction material to the proposed project footprint, staging areas, and designated routes of travel.
- Exclusion fencing shall be installed to demarcate the limits of disturbance. The exclusion fencing should be maintained until the completion of construction activities.
- To the extent feasible, construction shall be conducted outside of the nesting bird season (see MM BIO-8 below).

BIO-7 **USACE and RWQCB Jurisdiction**: Prior to issuance of a grading permit, the City shall obtain appropriate regulatory permits from USACE and RWQCB. Regulatory permits are anticipated to include a Section 404 Nationwide Permit through USACE and a Section 401 Water Quality Certification through RWQCB. Waste Discharge Requirements shall be obtained for impacts to non-federal waters through preparation and submittal of a SWRCB Report of Waste Discharge. Compensatory mitigation for permanent impacts to USACE and RWQCB jurisdiction shall be required as part of subsequent permitting requirements. Permanent impacts to USACE and RWQCB jurisdiction shall be mitigated through: (1) on-site preservation, enhancement, restoration, and/or creation of jurisdictional streambed at a ratio of no less than 2:1; (2) off-site preservation, enhancement, restoration, and/or creation of jurisdictional streambed at a ratio of no less than 2:1; and/or (3) purchase of credits at an approved mitigation bank at a ratio of

no less than 1:1, provided that the mitigation is creation of streambed and has already been successfully implemented. Temporary impact areas within the Santa Clara River and Drainage A shall be addressed in a separate streambed revegetation plan to be reviewed and approved by the resource agencies as part of subsequent regulatory permitting.

BMPs to minimize and avoid impacts to USACE and RWQCB jurisdiction during and after construction shall be addressed as part of the Nationwide Permit, Water Quality Certification, and Waste Discharge Requirements. Minimization and avoidance measures may include, but are not limited to, the following:

- Construction-related equipment shall be stored in developed/disturbed areas, outside of the drainage. No equipment maintenance shall be done within or adjacent to the drainage.
- Source control and treatment control BMPs shall be implemented to minimize the potential contaminants that are generated during and after construction. Water quality BMPs shall be implemented throughout the project to capture and treat potential contaminants.
- Substances harmful to aquatic life shall not be discharged into the drainage. All hazardous substances shall be properly handled and stored.
- A Storm Water Pollution Prevention Plan shall be prepared to prevent sediment from entering the drainage during construction.
- To avoid attracting predators during construction, the project shall be kept clean of debris to the extent possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from site.
- Construction personnel shall strictly limit their activities, vehicles, equipment and construction material to the proposed project footprint, staging areas, and designated routes of travel.
- Exclusion fencing shall be installed to demarcate the limits of disturbance. The exclusion fencing should be maintained until the completion of construction activities.

BIO-8 **Nesting Birds**: To the extent feasible, construction activities (i.e., earthwork, clearing, and grubbing) shall occur outside of the general bird nesting season for migratory birds, which is February 15 through August 31 for songbirds and January 1 to August 31 for raptors.

When construction activities (i.e., earthwork, clearing, and grubbing) occur during the general bird nesting season for migratory birds and raptors, a qualified biologist shall perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code. The pre-construction survey shall be performed no more than seven days prior to the commencement of construction activities. The qualified biologist shall document the results of the pre-construction survey. If construction is inactive for more

than seven days, an additional survey shall be conducted. **If the qualified biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed without any further requirements.**

If the qualified biologist determines that an active migratory bird or raptor nest is present, no construction activities within 300 feet (500 feet for raptors) of the active nest shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, or as determined by the qualified biologist. The biological monitor may modify the buffer or propose other recommendations to minimize disturbance to nesting birds.

7.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork and/or preparation of this report:

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Appendix A

Plant Species Observed

Family	Scientific Name	Common Name
ANGIOSPERMS – EUDICOTS		
Adoxaceae	*Sambucus mexicana*	blue elderberry
Apocynaceae	*Nerium oleander**	oleander
Asparagaceae	*Dichelostemma capitatum*	blue dicks
Asteraceae	*Ambrosia acanthicarpa*	annual bur-sage
	Artemisia californica	California sagebrush
	Artemisia douglasiana	mugwort
	Artemisia dracunculus	wild tarragon
	Artemisia tridentata	Great Basin sagebrush
	Baccharis pilularis	coyote brush
	Baccharis salicifolia	mule fat
	*Carduus pycnocephalus**	Italian thistle
	*Centaurea melitensis**	tocalote
	*Cirsium vulgare**	bull thistle
	Corethrogyne filaginifolia	common sandaster
	*Dittrichia graveolens**	stinkwort
	Encelia californica	California brittle bush
	Ericameria nauseosa	rubber rabbitbrush
	Erigeron canadensis	horseweed
	Helianthus annuus	common sunflower
	Heterotheca grandiflora	telegraph weed
	*Hypochaeris glabra**	smooth cat's ear
	Isocoma menziesii	goldenbush
	*Lactuca serriola**	wild lettuce
	Lasthenia californica	California goldfield
	Lepidospartum squamatum	Scale broom
	Pseudognaphalium californicum	California everlasting
	Senecio flaccidus var. *douglasii*	sandwash butterweed
	*Sonchus asper**	spiny sowthistle
	Stephanomeria pauciflora	desert straw
	Stephanomeria virgata	rod wirelettuce
Boraginaceae	*Amsinckia intermedia*	rancher's fiddleneck
	Cryptantha sp.	cryptantha
	Eriodictyon crassifolium	thickleaf yerba santa
	Eucrypta chrysanthemifolia	common eucrypta
	Heliotropium curassavicum var. *oculatum*	salt heliotrope
Brassicaceae	*Descurainia pinnata*	tansy-mustard
	*Hirschfeldia incana**	short-pod mustard
	Nasturtium officinale	watercress
	*Sisymbrium altissimum**	tumble mustard
	*Sisymbrium irio**	London rocket
Cactaceae	*Cylindropuntia californica*	California cholla
	Opuntia littoralis	coast prickly pear
Chenopodiaceae	*Atriplex canescens*	four-wing saltbush
	*Salsola tragus**	Russian thistle
Crassulaceae	*Crassula connata*	pygmy weed
Cucurbitaceae	*Cucurbita foetidissima*	calabazilla
	Marah macrocarpa	wild cucumber

Family	Scientific Name	Common Name
Euphorbiaceae	*Croton setiger*	dove weed
	*Ricinus communis**	castor bean
Fabaceae	*Acmispon glaber*	deerweed
	Astragalus trichopodus	Santa barbara milk vetch
	*Caesalpinia gilliesii**	yellow bird of paradise
	Lupinus bicolor	miniature lupine
	Lupinus succulentus	arroyo lupine
	*Melilotus albus**	white sweet clover
	*Melilotus indicus**	Indian sweet clover
	*Parkinsonia aculeata**	Mexican palo verde
	*Robinia pseudoacacia**	black locust
	*Vicia villosa**	hairy vetch
Fagaceae	*Quercus agrifolia*	coast live oak
Geraniaceae	*Erodium cicutarium**	red stemmed filaree
Lamiaceae	*Marrubium vulgare**	horehound
	Salvia columbariae	chia
	Salvia mellifera	black sage
	Salvia leucophylla	purple sage
	Trichostema lanatum	woolly bluecurls
Loasaceae	*Mentzelia laevicaulis*	blazing star
	Petalonyx thuberi	sandpaper plant
Moraceae	*Ficus carica**	edible fig
Myrtaceae	*Eucalyptus camaldulensis**	river red gum
Onagraceae	*Camissoniopsis bistorta*	California sun cup
	Epilobium ciliatum ssp. *ciliatum*	willow herb
Papaveraceae	*Eschscholzia californica*	California poppy
Polemoniaceae	*Eriastrum densifolium*	giant woollystar
	Eriastrum sapphirinum	sapphire woollystar
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat
	Eriogonum gracile	slender buckwheat
	*Rumex crispus**	curly dock
Salicaceae	*Populus fremontii ssp. fremontii*	Fremont cottonwood
	Salix exigua	narrow-leaved willow
	Salix lasiolepis	arroyo willow
Scrophulariaceae	*Myoporum parvifolium**	slender myoporum
Simaroubaceae	*Ailanthus altissima**	tree of heaven
Solanaceae	*Datura wrightii*	jimson weed
	*Nicotiana glauca**	tree tobacco
	Solanum xanti	purple nightshade
Tamaricaceae	*Tamarix aphylla**	evergreen saltcedar
	*Tamarix ramosissima**	saltcedar
Verbenaceae	*Verbena lasiostachys*	verbena
ANGIOSPERMS – MONOCOTS		
Agavaceae	*Hesperoyucca whipplei*	Our Lord's candle
Arecaceae	*Washingtonia robusta**	Mexican fan palm
Cyperaceae	*Cyperus eragrostis*	tall flatsedge

Family	Scientific Name	Common Name
Poaceae	*Arundo donax**	giant reed
	*Avena barbata**	slender oat
	*Bromus diandrus**	common ripgut grass
	*Bromus hordeaceus**	soft brome
	*Bromus madritensis**	foxtail chess
	*Bromus rubens**	red brome
	*Bromus tectorum**	cheatgrass
	*Festuca myuros**	fescue
	*Polypogon monspeliensis**	annual beardgrass
	*Schismus barbatus**	common Mediterranean grass
	*Stipa miliacea**	Smilo grass

* Non-native species

Appendix B

Animal Species Observed or Detected

Order	Family	Scientific Name	Common Name
INVERTEBRATES			
Insects			
Coleoptera	Coccinellidae	*Coccinella septempunctata*	seven-spot ladybird
Hymenoptera	Andrenidae	*Calliopsis linsleyi*	mining bee
		Perdita eriastri	N/A
	Apidae	*Anthophora californica*	California digger bee
		Anthophora urbana	urban digger bee
		Apis mellifera	honeybee
		Bombus californicus	California bumble bee
		Bombus melanopygus	black-tailed bumble bee
		Ceratina sp.	small carpenter bee
		Diadasia australis	chimney bee
		Melissodes velutinus	long-horned bee
		Peponapis pruinosa	squash bee
	Dialictus	*Lasioglossum* sp.	sweat bee
	Halictidae	*Dieunomia nevadensis*	Nevada nomia
		Halictus ligatus	ligated furrow bee
	Megachilidae	*Dianthidium* sp.	pebble bee
		Megachile sp.	leafcutter bee
	Pompilidae	Unidentified	tarantula hawk
VERTEBRATES			
Reptiles			
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard
Birds			
Accipitriformes	Accipitridae	*Accipiter cooperii*	Cooper's hawk
		Buteo jamaicensis	red-tailed hawk
		Buteo lineatus	red-shouldered hawk
Apodiformes	Cathartidae	*Cathartes aura*	turkey vulture
	Trochilidae	*Calypte anna*	Anna's hummingbird
		Selasphorus sasin	Allen's hummingbird
Caprimulgiformes	Apodidae	*Aeronautes saxatalis*	white-throated swift
Charadriiformes	Charadriidae	*Charadrius vociferus*	killdeer
Columbiformes	Columbidae	*Columba livia*	rock pigeon
		Streptopelia decaocto	Eurasian collared-dove
		Zenaida macroura	mourning dove
Galliformes	Odontophoridae	*Callipepla californica*	California quail
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Bombycillidae	*Bombycilla cedrorum*	cedar waxwing
	Corvidae	*Aphelocoma californica*	California scrub-jay
		Corvus brachyrhynchos	American crow
		Corvus corax	common raven
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus lawrencei	Lawrence's goldfinch
		Spinus psaltria	lesser goldfinch
	Hirundinidae	*Hirundo rustica*	barn swallow
		Stelgidopteryx serripennis	northern rough-winged swallow
	Icteridae	*Agelaius phoeniceus*	red-winged blackbird
	Mimidae	*Mimus polyglottos*	northern mockingbird

Order	Family	Scientific Name	Common Name
Passeriformes (cont.)	Parulidae	*Setophaga coronata*	yellow-rumped warbler
	Passerellidae	*Setophaga petechia*	yellow warbler
		Chondestes grammacus	lark sparrow
		Melospiza melodia	song sparrow
		Melozone crissalis	California towhee
		Pipilo maculatus	spotted towhee
		Zonotrichia leucophrys	white-crowned sparrow
	Passeridae	*Passer domesticus*	house sparrow
	Regulidae	*Regulus calendula*	ruby-crowned kinglet
	Troglodytidae	*Catherpes mexicanus*	canyon wren
		Salpinctes obsoletus	rock wren
		Thryomanes bewickii	Bewick's wren
	Turdidae	*Sialia mexicana*	western bluebird
		Turdus migratorius	American robin
	Tyrannidae	*Myiarchus cinerascens*	ash-throated flycatcher
		Sayornis nigricans	black phoebe
		Sayornis saya	Say's phoebe
		Tyrannus vociferans	Cassin's kingbird
Piciformes	Picidae	*Colaptes auratus*	northern flicker
		Picoides nuttallii	Nuttall's woodpecker
Mammals			
Carnivora	Canidae	*Canis latrans*	coyote
Lagomorpha	Leporidae	*Lepus californicus*	black-tailed jackrabbit
		Sylvilagus audubonii	desert cottontail
		Sylvilagus bachmani	brush rabbit
Rodentia	Sciuridae	*Otospermophilus beecheyi*	California ground squirrel

Appendix C

Representative Site Photographs

Photo 1: View of upland mustard fields/rubber rabbitbrush scrub in the western portion of the project site, facing southwest. Photograph taken on November 15, 2022.

Photo 2: View of upland mustard fields in the northern portion of the project site, facing east. Photograph taken on November 15, 2022.

See Figure 5 for photograph locations.

Photo 3: View of Fremont cottonwood forest and woodland within Honby Channel in the central portion of the project site, facing west. Photograph taken on November 15, 2022.

Photo 4: View of the yerba santa scrub in the central portion of the project site, facing northwest. Photograph taken on November 15, 2022.

See Figure 5 for photograph locations.

Photo 5: View of the scale broom scrub in the northeastern portion of the project site, facing northeast. Photograph taken on November 15, 2022.

Photo 6: View of disturbed habitat in the northeastern portion of the project site, facing southeast. Photograph taken on August 25, 2023.

See Figure 5 for photograph locations.

Photo 7: View of the disturbed/California buckwheat scrub in the northeast portion of the project site, facing northeast. Photograph taken on August 25, 2023.

Photo 8: View of the mule fat thickets within Drainage A in the southeast portion of the project site, facing north. Photograph taken on November 15, 2022.

See Figure 5 for photograph locations.

Appendix D

Crotch's Bumble Bee Focused Survey Report

Survey Report:

Surveying for Crotch's Bumblebee (*Bombus crotchii*) on Via Princessa Park Project, Santa Clarita, Los Angeles County, California

Project number:

03100.00012.001

Prepared by:

Dr. Doug Yanega
Riverside, CA

Date prepared:

1 August 2023

Background:

Recent work on the historical and present distributions of Californian native bumblebees has highlighted a number of species that appear to be in significant decline. Among these species, Crotch's bumblebee (*Bombus crotchii*) is one with historical records throughout southern California and relatively few recent records from areas where it was historically documented. Many of the historical data points (a total of 705 specimens) for this bee originated in the databasing efforts at UC Riverside that I performed and continue to perform. Looking more narrowly, starting in 1908, there are only 191 records of this bee from Los Angeles County in the UCR database, with seasonal collection dates ranging from March through October; almost half of those records (94 of 191) are from the month of July, suggesting a clear peak of seasonal activity. This bee also appears to be encountered somewhat more often at elevations above 1,000 feet (121 of 191 records), though over the entirety of its range, it can be found anywhere from sea level to 10,000 feet. It is not reported very commonly from the vicinity of Santa Clarita; there are fewer than 10 records historically from the area (Mint Canyon, Newhall, Pico Canyon, Wickham Canyon), going back over 100 years.

As *B. crotchii* is a highly social insect species, it typically starts the season as individual overwintered queens that produce a small brood of worker daughters in the spring, and these in turn assist in the production of much larger numbers of summer brood daughters in June and July, and reproductives in August and September. Nests are **only** initiated in the spring and must persist for at least 4 to 5 months to reproduce. As such, the ideal overall survey interval needs to bracket June and July, as the colony sizes will be largest then, and if the bees are present in an area, they should be most abundant and highly visible. Bumblebees are more tolerant of low temperatures and overcast conditions than nearly all other bees, so their active "window" is very broad. A colony with a few dozen workers will have multiple foragers out gathering resources at any given time, and the workers can readily forage at distances up to half a kilometer from their nest, if not more; therefore, taking all of these points into consideration, any decent-sized patch of suitable flowers anywhere near a bumblebee nest can expect to have bees visiting under even marginal conditions.

The necessity of resources for an extended period represents a serious ecological limitation for this and other bumblebee species. They absolutely cannot and will not persist as long-term residents in habitats that do not have abundant and uninterrupted floral resources available for multiple generations; at an absolute minimum, no social bee species can complete a colony cycle in less than 3 months; the queens must survive and provision for at least one month, and there must be at least one generation of workers, surviving and provisioning for at least one more month. In certain bee species, the first generation of workers is followed by another month during which reproductives emerge, forage, and enter seasonal diapause. In bumblebees, there are typically multiple generations of workers, over a period of two or three months, prior to the production of reproductives, though *B. crotchii* sometimes produces males prior to the end of the colony cycle; however, it has not been documented that these males live long enough to mate with the new queens produced later in the season. Understanding this limitation of their ecology is crucial to the assessment of potential bumblebee habitat.

Crotch's Bumblebee is one of the largest bees in southern California, and strikingly patterned black and yellow; they could hardly be more readily visible, and only a very few local bees (*Bombus californicus, B. vosnesenskii, B. melanopygus*, and *B. vandykei*) or other flower visitors (e.g., *Mallophora fautrix*) could be easily confused with this particular species. I am personally a world expert in bee identification and have examined tens of thousands of bumblebee specimens, so I do not have difficulty distinguishing bumblebee species from one another in the field; *B. crotchii* is among the most distinctive species, especially if one can get a reasonably close view (the pubescence on their abdomen is not as erect, or "fluffy", as in other local species, and the abdominal banding pattern is different), or if one encounters a male (males of this species have exceptionally large eyes).

Field protocols:

For the present assessment, I was able to initiate survey work on May 28, and perform additional surveys every third week through July 30, for a total of four surveys bracketing the bulk of the expected active season. All surveys, except the first, were carried out under conditions of full sunlight, with ambient temperatures generally above 70°F, and almost all under low wind speed. Dates, starting times, and general conditions are shown in the table below:

Survey Number	Date Performed	Start Time	Weather Conditions	Results
1	28 May 2023	1300	temperature 66° initially, reaching 70°F by end; intermittent wind, overcast to partially sunny	No *B. crotchii* observed
2	18 June 2023	0954	temperature 67° early, reaching 78°F by end; winds light, no clouds	No *B. crotchii* observed
3	9 July 2023	0900	temperature 65° early, reaching 78°F by end; winds light, no clouds	No *B. crotchii* observed
4	30 July 2023	0730	temperature 73° early, reaching 82°F by end; minimal wind, no clouds	No *B. crotchii* observed

(Table 1).

The protocol was to walk west along the railroad tracks in the southwestern portion of the parcel, then north near the concrete at the bottom of the embankment on the western edge, then walk eastwards along the northern margin of the parcel (the southern margin of the river floodplain) to the northeastern corner (near the housing development) and then south to the southeastern corner of the parcel, and then back towards the railroad track entrance. The generally small number or diversity of plants in bloom on the surveyed property made it possible to view all the flowering plants on site (or at least, different species) in a single visit. There was easily enough time for careful assessment of the state of bloom of the various plant species present, and the collection of small numbers of voucher specimens of bees and other floral visitors occurring on site. Plant species on site were photographed if they could not be identified immediately, and insect specimens for taxa needing identification (which did not include any known or potential State- or Federally- listed or candidate species) were captured with an insect net; the vouchers collected will be databased and deposited in the UC Riverside Entomology Research Museum (ERM). Most bee identifications were performed by comparison to known specimens already deposited in the ERM. As only two bumblebees of any species were seen, and easily recognized to species in the field, there was no need for documentation of potential *B. crotchii* sightings.

Survey results:

Appendix 1 presents the list of bee host plant species observed in bloom at the site; other plants not in bloom (grasses, trees, etc.) were not recorded. The dominant plant, both in bloom and otherwise, was invasive mustard (*Hirschfeldia incana*), by an overwhelming margin versus all other plants other than grasses. The peripheral areas, and wash in the west-central portion, had slightly different vegetation. There were some stands of yerba santa, especially near the center and the northeast corner, woollystar along the northern edge, prickly pear in the northeast, wire lettuce and buckwheat along the eastern edge, a large stand of thistle in the southeast, and buckwheat in the southwest.

Appendix 2 presents the list of bee species observed at the site. No *B. crotchii* were observed on-site during any of the visits, and only two bumblebee individuals of any species (one *B. melanopygus*, one *B. californicus*). The majority of bees - when bees were present - were usually the Africanized honeybee (*Apis mellifera*), though there was some fluctuation in their numbers. These bees were especially abundant along the western edge and had at least two large and very active colonies at the bottom of the embankment. These were very aggressive and presented a significant hazard. Of the remaining floral visitors observed, some were specialist species that only visit a single plant for nectar and/or pollen (marked in Appendix 2), though most were generalist pollen feeders.

Of primary importance is the almost complete absence of bumblebees, even early in the season, despite the availability of numerous suitable host plants. At least one of the other bees seen in large numbers on the parcel, *Halictus ligatus*, is a social species with colonies that increase substantially in size as the season progresses. This species was hardly evident in May and June, but by the end of July it was second in abundance only to *Apis* and found visiting almost all the plant species in bloom. That this species was able to persist and increase its population over the course of the year suggests that the abundance of floral resources on the parcel was consistent enough to support social species (such as bumblebees), yet bumblebees were not evident. However, *Halictus ligatus* is a small species that requires fewer floral resources to sustain itself, and has especially low requirements for nectar, as they do not produce honey. They therefore are not expected to experience significant competition with honeybees. Any bumblebees, however, would be in direct competition with honeybees, **especially** for floral nectar. It seems possible that the population of honeybees on the parcel was so large, and so aggressive in their

consumption of floral resources, that they effectively precluded the persistence of bumblebees in the area.

I will note that there were several encampments evident on the parcel. There are signs of regular 2-wheeled and foot traffic, primarily in the western half of the parcel. These are not expected to have any impact on the availability of either flowers or nesting sites for bumblebees.

Conclusion:

I can say with a very high degree of confidence that there were no colonies of *Bombus crotchii*, within the study site or in reasonable proximity (approximately 1/2 kilometer). Had they been present in the vicinity, they should have been readily apparent. As noted earlier, these insects are large, strikingly visible, and very active flower visitors with a good-sized foraging radius, so they do not readily escape detection when they are present. These conclusions are supported by the fact that the season and the weather conditions were suitable to detect *B. crotchii*, and yet I did not observe any during any of the survey intervals at the site, even those which occurred during the normal peak of seasonal activity for this species.

Given the seasonal profile and floristic composition, this habitat is potentially capable of supporting a persistent population of bumblebees, but it seems likely that the non-native Africanized honeybees may be excluding bumblebees from the parcel.

I will note that there are a few residential properties not far removed from the parcel, but these properties were not surveyed. It is possible, if these properties have a variety of flowering plants, and are supplied with water to keep these plants in bloom, bumblebees might be able to survive on these properties, but they would still potentially do so in competition with honeybees. Any bumblebees that tried to move into the nearby native habitat, such as this parcel, would face significant competition.

Therefore, based on my surveys of the site, the site is not occupied by *Bombus crotchii*, though it might potentially be suitable, if honeybees could somehow be excluded from the area; this, however, is simply not practical to accomplish (about the only places where they have ever been eradicated is on islands).

Please contact me at dyanega@gmail.com, or 951-333-5873, with any questions.

Sincerely,

Dr. Douglas Yanega

Attachments:

Appendix 1. Bee Host Plants Seen Blooming at Survey Site
Appendix 2. List of Bees seen at Survey Site
Appendix 3. Report Figures

APPENDIX 1:

BEE HOST PLANTS SEEN BLOOMING AT SURVEY SITE (only dates in flower annotated)

Common:
Carduus pycnocephalus (Asteraceae) - May 28 - June 18
Centaurea melitensis (Asteraceae) - May 28 - June 18 - July 9
Eriastrum sapphirinum (Polemoniaceae) - June 18 - July 9 - July 30
Eriodictyon crassifolium (Boraginaceae) - May 28
Eriogonum fasciculatum (Polygonaceae) - May 28 - June 18 - July 9 - July 30
Erodium cicutarium (Geraniaceae) - May 28 - June 18
Hirschfeldia incana (Brassicaceae) - May 28 - June 18 - July 9 - July 30
Marrubium vulgare (Lamiaceae) - May 28
Opuntia littoralis (Cactaceae) - May 28 - June 18
Sambucus mexicana (Adoxaceae) - May 28 - June 18

Less frequent:
Cylindropuntia californica (Cactaceae) - May 28
Datura wrightii (Solanaceae) - May 28
Ericameria nauseosa (Asteraceae) - July 30
Helianthus annuus (Asteraceae) - June 18 - July 9 - July 30
Lupinus succulentus (Fabaceae) - May 28 - June 18 - July 9
Melilotus indicus (Fabaceae) - May 28 - June 18
Melilotus officinalis (Fabaceae) - May 28 - June 18
Nicotiana glauca (Solanaceae) - May 28 - June 18 - July 9 - July 30
Petalonyx thurberi (Loasaceae) - July 9 - July 30
Phacelia ?distans (Boraginaceae) - May 28 - June 18
Senecio douglasii (Asteraceae) - May 28 - June 18 - July 9 - July 30
Stephanomeria virgata (Asteraceae) - June 18 - July 9 - July 30
Proboscidea louisianica (Martyniaceae) - July 30

Single plants only:
Acmispon americanus (Fabaceae) - May 28
Caesalpinia gilliesii (Fabaceae) - July 9 - July 30
Cucurbita foetidissima (Cucurbitaceae) - July 30
Madia gracilis (Asteraceae) - May 28
Phacelia sp. (Boraginaceae) - May 28
Pseudognaphalium californicum (Asteraceae) - May 28
Salvia clevelandii (Lamiaceae) - May 28
Vicia sp. (Fabaceae) - May 28

Most species definitely occurring within study site boundaries, except for *Cylindropuntia, Datura, Petalonyx*, and *Salvia*, seen only along the margins.

[NOTE: photographs of most of these plants are available upon request, but not included in this report]

APPENDIX 2:

LIST OF BEES SEEN AT SURVEY SITE (dates seen annotated)

BEES:

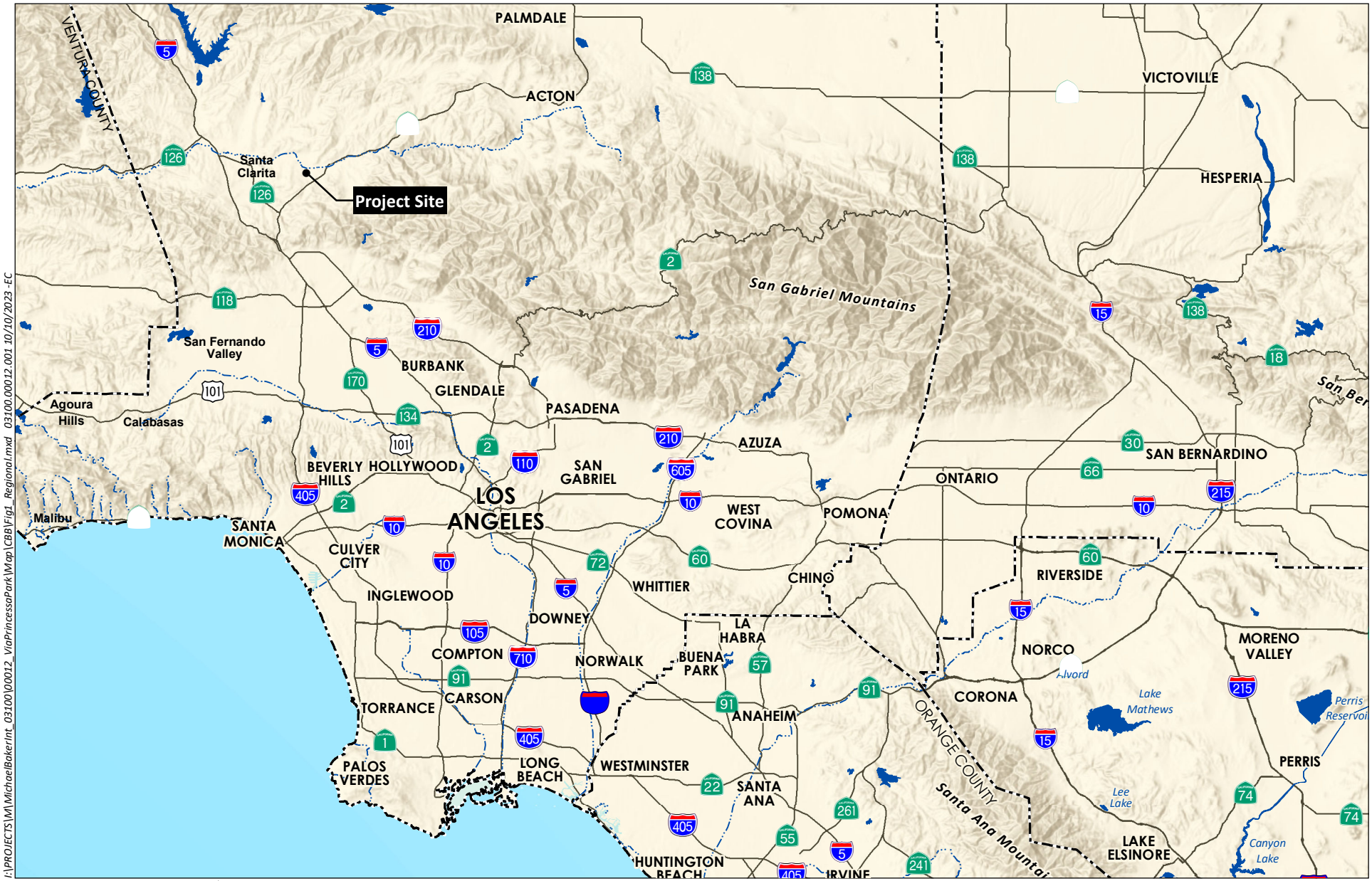
Anthophora californica (Apidae) - June 18 - July 30
Anthophora urbana (Apidae) - May 28
Apis mellifera (Apidae) - May 28 - June 18 - July 9 - July 30
Bombus californicus (Apidae) – July 9
Bombus melanopygus (Apidae) - May 28
Calliopsis linsleyi (Andrenidae)** - May 28
Ceratina sp. (Apidae) - July 30
Diadasia australis (Apidae) - May 28 - June 18
Dianthidium sp. (Megachilidae) – July 9
Dieunomia nevadensis (Halictidae) - June 18 - July 9 - July 30
Halictus ligatus (Halictidae) - July 9 - July 30
Lasioglossum (*Dialictus*) sp. 1 (Halictidae) - June 18
Lasioglossum (*Dialictus*) sp. 2 (Halictidae) - July 9 - July 30
Lasioglossum (*Dialictus*) sp. 3 (Halictidae) - July 30
Megachile sp. (Megachilidae) - June 18
Melissodes velutinus (Apidae)* - June 18
Peponapis pruinosa (Apidae)*** - July 30
Perdita eriastri (Andrenidae)* - June 18 - July 9

* = specialist species whose host associations are limited to *Eriastrum*
** = specialist species whose host associations are limited to *Eriodictyon*
*** = specialist species whose host associations are limited to *Cucurbita*

APPENDIX 3:

REPORT FIGURES

Via Princessa Park



I:\PROJECTS\M\MichaelBakerInt_03100\00012_ViaPrincessaPark\Map\CBB\Fig1_Regional.mxd 03100.00012.001 10/10/2023 -EC

0 10 Miles

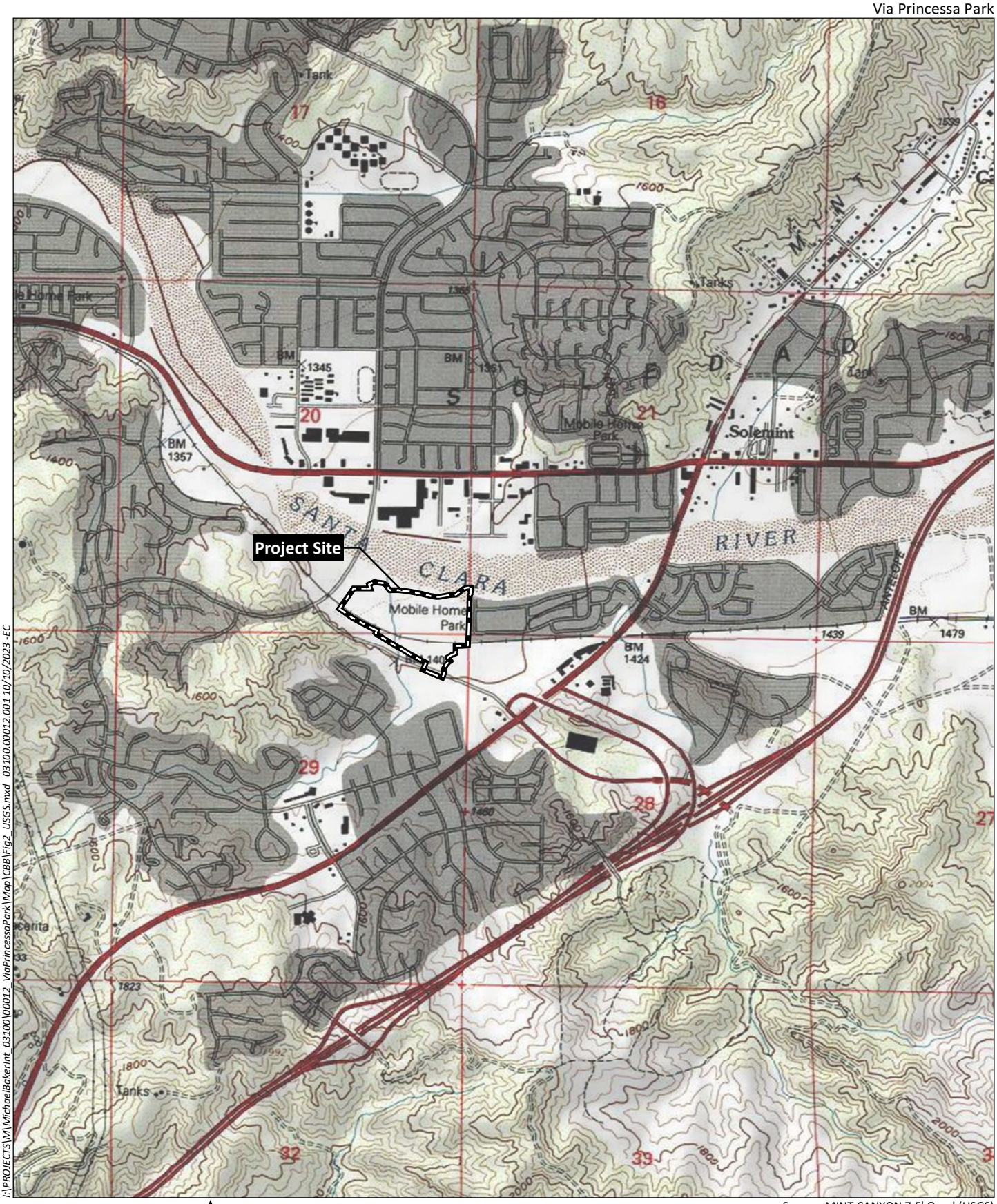
Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1

Via Princessa Park



I:\PROJECTS\M\MichaelBakerInt_03100\00012_ViaPrincessaPark\Map\CBB\Fig2_USGS.mxd 03100.00012.001 10/10/2023 -EC

0 2,000 Feet

Source: MINT CANYON 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Via Princessa Park

0 350 Feet

Source: Aerial (Maxar, 2022)

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HELIX Environmental Planning

Aerial Photograph

Figure 3

Appendix E

Burrowing Owl Focused Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
Suite 150
Irvine, CA 92618
949.573.9450 **tel.**
619.462.0552 **fax**
www.**helixepi**.com

October 27, 2023 03100.00012.001

Ms. Leslie Frazier
Mr. Dan Duncan
City of Santa Clarita
23920 Valencia Boulevard
Santa Clarita, CA 91355

Subject: 2023 Burrowing Owl (*Athene cunicularia*) Survey Report for the Via Princessa Park Project

Dear Ms. Frazier and Mr. Duncan:

This letter report presents the results of the 2023 focused burrowing owl (*Athene cunicularia*; BUOW) survey conducted by HELIX Environmental Planning, Inc. (HELIX) for the Via Princessa Project located in the City of Santa Clarita (City), Los Angeles County, California. The survey was performed under the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on BUOW Mitigation.[1] This letter report describes the methods used to perform the survey and the survey results.

PROJECT SITE LOCATION

The project site is generally located one mile west of State Route 14 and six miles east of Interstate 5 (Figure 1, *Regional Location*). The project site is within Sections 20 and 29 of Township 4 North, Range 15 West of Mint Canyon, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located north of the intersection of Via Princessa and Weyerhaeuser Way (Figure 3, *Aerial Photograph*). The Metrolink railroad runs in an east-west direction through the southern portion of the project site.

Immediate land uses surrounding the project site include a residential community and commercial development to the east, a golf course and residential community to the south, undeveloped land and Whites Canyon road to the west, and the Santa Clara River to the north.

[1] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resource Agency. March 7.

PROJECT SITE DESCRIPTION

The project site is directly adjacent to the Santa Clara River and historically used for agriculture.[2] The northern portion of the project site is undeveloped and dominated by non-native upland mustard fields. Small patches of native upland habitat include big sagebrush, California buckwheat scrub, and rubber rabbitbrush scrub. The project site supports three small drainages (Honby Channel and two unnamed drainage systems) in addition to the southern banks of the Santa Clara River. Riparian and alluvial scrub associated with the drainages include Fremont cottonwood forest and woodland, mule fat thickets, and scale broom scrub. The southern portion of the project site consists of the Via Princessa Metrolink Station and associated parking lot, in addition to the railroad tracks that run east-west through the project site.

Elevations on the project site range from approximately 1,368 feet (417 meters) above mean sea level (AMSL) along the northern project boundary to approximately 1,416 feet (432 meters) AMSL in the southeastern corner. Four soil types are mapped on the project site, including Cortina sandy loam (0 to 2 percent slopes), Hanford sandy loam (0 to 2 percent slopes), sandy alluvial land, and Yolo loam (2 to 9 percent slopes).[3] The project site is surrounded by mobile homes in the eastern portion and a residential community in the western and southern portions of the project site.

METHODS

Habitat Assessment and Focused Burrow Survey

Before conducting the habitat assessment, HELIX consulted the California Natural Diversity Database (CNDDB) to determine the nearest BUOW occurrence(s). HELIX biologist Daniel Torres conducted a habitat assessment on November 14, 2022, to determine whether the project site supports suitable BUOW habitat. A focused burrow survey was conducted concurrently with the habitat assessment. All suitable burrows (i.e., greater than approximately 4 inches [11 centimeters] in height and width, and greater than approximately 59 inches [50 centimeters] in depth). The habitat assessment and focused burrow survey were conducted before the commencement of the BUOW-focused surveys. The assessment was conducted on the project site and included an approximately 500-foot (150-meter) buffer zone around the periphery of the project site (survey area). Inaccessible areas of the survey area, including private land behind fences, were visually assessed using binoculars. The survey area was slowly walked and assessed for suitable BUOW habitat, including:

- disturbed, low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and

[2] Historic Aerials. 2023. Aerial Imagery of the Via Princessa Park Project, 34.409766°, -118.470855°. Aerial Imagery from 1947. Available at: https://www.historicaerials.com/viewer. Accessed June 12, 2023.

[3] Natural Resources Conservation Service. 2023. Web Soil Survey. United States Department of Agriculture. Retrieved from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed June 12, 2023.

- artificially created structures, such as earthen berms, debris piles, and cement culverts.

All potential owl burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitated fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

Focused Burrowing Owl Survey

Because suitable habitat and burrows were observed within the survey area during the habitat assessment, focused BUOW surveys were conducted to determine whether the survey area supports BUOW. The focused surveys consisted of four breeding season surveys performed by Mr. Torres and HELIX biologists Taylor Chase, Matthew Dimson, Kacee Morrell, and Cache Tucker between April 10 and July 6, 2023 (Table 1, *Survey Information*).

The biologists walked transects spaced no greater than approximately 65 feet apart (20 meters) to allow for 100 percent visual coverage of all suitable habitat within the survey area. The biologists walked slowly and methodically, closely checking suitable habitat within the survey area for BUOW diagnostic sign (e.g., molted feathers, pellets/castings, or whitewash at or near a burrow entrance) and individual BUOW. If observed, BUOW sign and BUOW observations were recorded with a Global Positioning System handheld unit. Inaccessible areas of the survey area were visually assessed using binoculars.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
HA[1]	11/14/22	Daniel Torres	0920/1415	51°F, wind 1-2 mph, 0% clouds 67 °F, wind 2-3 mph, 0% clouds	Suitable habitat and burrows present.
1	04/10/23	Cache Tucker Matthew Dimson	0630/1000	52°F, wind 1-2 mph, 0% clouds 70°F, wind 1-3 mph, 5% clouds	No BUOW detected.
2	05/15/23	Daniel Torres[2] Taylor Chase	0630/0940	58°F, wind 2-3 mph, 100% clouds 70°F, wind 4-8 mph, 10% clouds	No BUOW detected.
3	06/05/23	Kacee Morrell Matthew Dimson	0615/1000	56°F, wind 1-2 mph, 0% clouds 59°F, wind 3-5 mph, 100% clouds	No BUOW detected.
4	07/06/23	Cache Tucker[3] Taylor Chase	0630/0930	55°F, wind 1-2 mph, 0% clouds 76°F, wind 2-5 mph, 0% clouds	No BUOW detected.

[1] Habitat assessment and focused burrow survey.
[2] The first surveyor ended the survey at 0725 while the second surveyor continued walking transects.
[3] The first surveyor ended the survey at 0900 while the second surveyor continued walking transects.

RESULTS

There is one CNDDB record (Occurrence No. 732) of BUOW occurring within the project site. The record notes one adult was observed along the bank of the Santa Clara River in 2005.[4] There is another CNDDB record (Occurrence No. 1882) of BUOW occurring approximately six miles northwest of the project site. The record notes that one BUOW adult was observed seeking shelter on the northwest side of Copper Hill Drive near Castaic Junction.

Suitable BUOW habitat was observed within the project site, including low-growing vegetation within the upland mustard fields and disturbed habitat (Attachment A, *Representative Site Photos*). Several earthen burrows that could potentially be used by BUOW were observed within the survey area, and suitable foraging habitat. No BUOW or sign of BUOW occupation were observed within the survey area during the four breeding season surveys. Therefore, BUOW does not currently occupy the project site. Observed burrow locations and transects are shown on Figure 4, *Suitable Burrow and Transect Locations*.

CONCLUSION

No BUOWs were observed or detected within the survey area during the focused surveys. Burrows with the potential to support BUOW were noted within the survey area, but no sign of BUOW occupation was observed. A take avoidance (pre-construction) survey is required to be conducted within 14 days before construction activities (including ground disturbance) and repeated within 24 hours before construction, per the CDFW Staff Report on BUOW Mitigation. If construction activities are delayed more than 24 hours after the take avoidance survey has been completed, the project site must be resurveyed.

If you have any questions regarding the information presented in this letter report, please contact Lauren Singleton at LaurenS@helixepi.com.

Sincerely,

Daniel Torres
Biologist

Matthew Dimson
Biologist

Taylor Chase
Biologist

Cache Tucker
Biologist

Kacee Morrell
Biologist

[4] California Department of Fish and Wildlife. 2023. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Retrieved from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed June 12, 2023.

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Suitable Burrow and Transect Locations
Attachment A: Representative Site Photos

Qualifications

Taylor Chase is a biologist with eight years of professional experience. He has conducted surveys for sensitive wildlife species in a variety of environments throughout southern California, including coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and BUOW. Mr. Chase has conducted approximately 15 BUOW focused and pre-construction surveys, of which BUOW was positively confirmed during eight surveys. Additionally, Mr. Chase has assisted San Diego Zoo biologists with BUOW relocation in the San Diego area. He has also provided construction monitoring for multiple development and restoration projects, totaling over 1,600 hours to help ensure the projects did not negatively impact BUOWs.

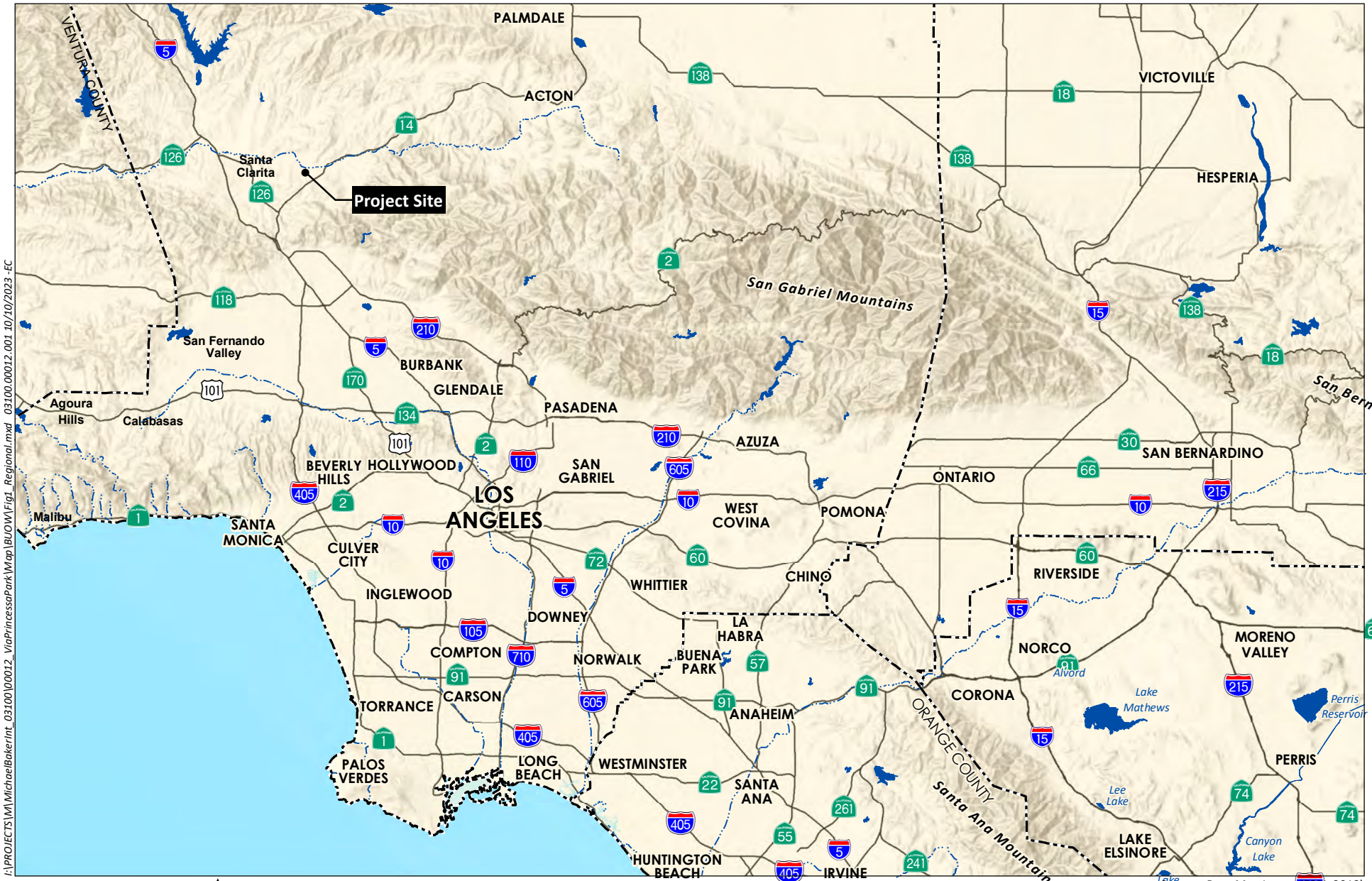
Matthew Dimson is a biologist with seven years of professional experience, with an emphasis in Los Angeles, Orange, Riverside, and San Bernardino Counties. He has conducted surveys for a variety of sensitive wildlife species, including western spadefoot (*Spea hammondii*), coastal California gnatcatcher, least Bell's vireo, and BUOW. Mr. Dimson has conducted over 100 BUOW focused and pre-construction surveys, of which BUOW was positively confirmed during 17 surveys. Mr. Dimson also provided construction monitoring for two projects, totaling over 445 hours, to help ensure projects did not negatively impact BUOWs. Additionally, Mr. Dimson attended The Wildlife Society's BUOW Workshop at the Rancho Jamul Ecological Reserve in 2019.

Kacee Morrell is a biologist with four years of professional experience. He has conducted surveys for sensitive wildlife species in a variety of environments throughout southern California, including mountain yellow-legged frog (*Rana muscosa*), western spadefoot, and BUOW. Mr. Morrell has conducted approximately 27 BUOW focused and pre-construction surveys, of which BUOW was positively confirmed during one survey. He also provided construction monitoring for two projects, totaling over 36 hours, to help ensure the projects did not negatively impact BUOWs. He has assisted in passive relocating two BUOWs in the City of Menifee. In February 2023, Mr. Morrell attended the Western Section Wildlife Society 2023 BUOW Symposium.

Daniel Torres is a biologist with nine years of experience working and managing projects throughout southern California, with an emphasis in Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Mr. Torres has conducted nesting bird surveys and focused surveys for BUOW and least Bell's vireo. Mr. Torres has conducted over 35 BUOW focused surveys and pre-construction surveys, of which burrowing owl was positively confirmed during 10 surveys. He has also performed approximately 20 hours of construction monitoring with burrowing owls present to help minimize impacts to active burrows.

Cache Tucker is a biologist with ten years of professional experience. He has conducted surveys for sensitive wildlife species in a variety of environments throughout southern California, including least Bell's vireo, desert tortoise (*Gopherus agassizii*), and BUOW. Mr. Tucker has conducted over 60 BUOW focused and pre-construction surveys, of which BUOW was positively confirmed during two surveys. He also provided construction monitoring for three projects, totaling over 240 hours, to help ensure the projects did not negatively impact BUOWs. Mr. Tucker attended the Elkhorn Slough BUOW Training in 2014 and the Western Section Wildlife Society 2023 BUOW Symposium.

Via Princessa Park



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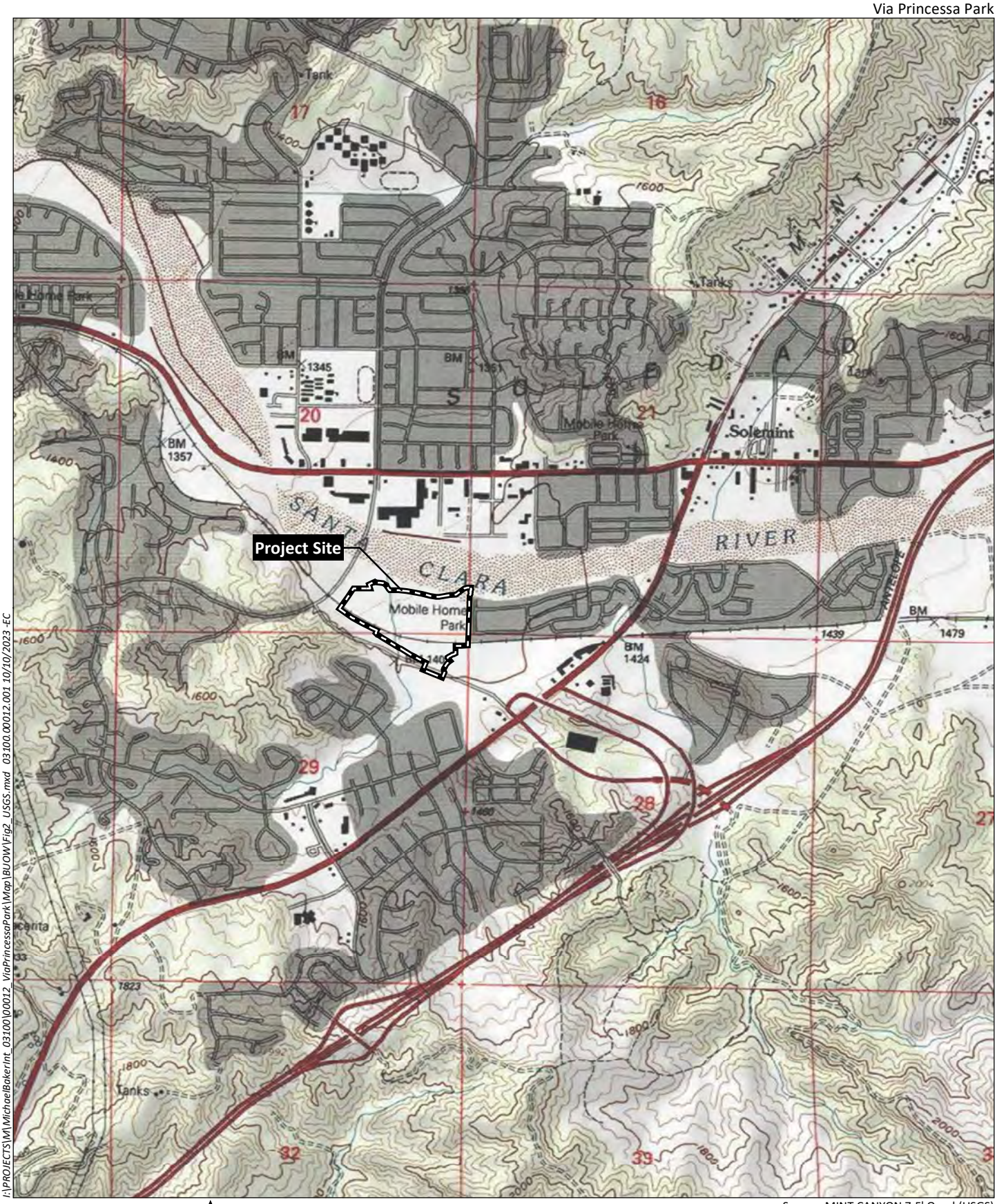
HELIX Environmental Planning

Regional Location

Figure 1

Via Princessa Park



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Source: MINT CANYON 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Via Princessa Park

Source: Aerial (Maxar, 2022)

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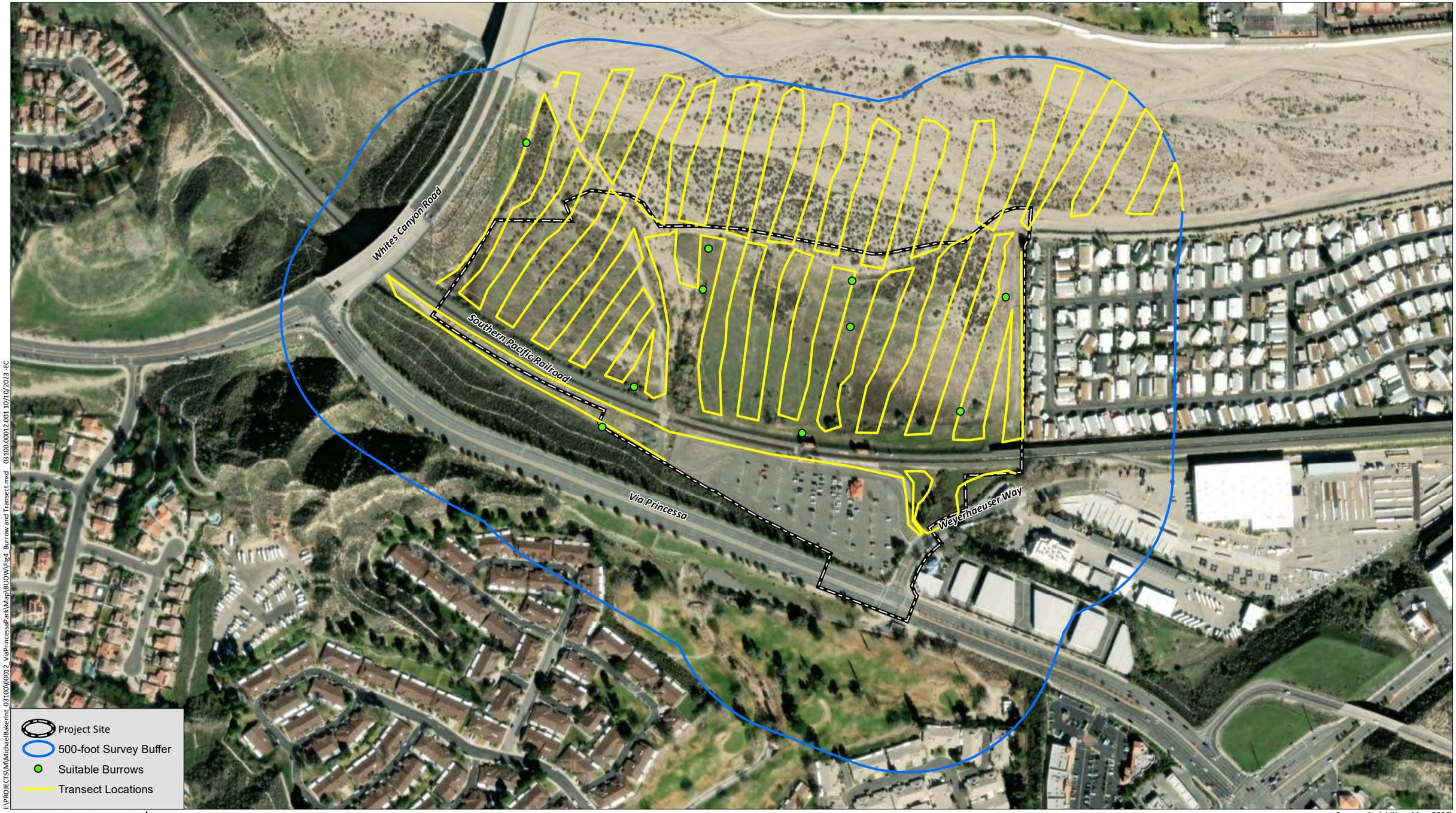
HELIX Environmental Planning

Aerial Photograph

Figure 3

Via Princessa Park



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Source: Aerial (Near Map, 2023)

HELIX Environmental Planning

Suitable Burrow and Transect Locations

Figure 4

Photo 1: View of the disturbed habitat along the eastern project boundary, facing north.

Photo 2: View of an earthen burrow in the north-central portion of the project site.

Appendix F

Least Bell's Vireo Focused Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
Suite 150
Irvine, CA 92618
949.573.9450 **tel.**
619.462.0552 **fax**
www.**helixepi**.com

September 11, 2023 03100.00012.001

Mr. Chris Kofron
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003

Mr. David Mayer
California Department of Fish and Wildlife
3883 Ruffin Road
San Diego, CA 92123

Subject: 2023 Least Bell's Vireo (*Vireo bellii pusillis*) Survey Report for the Via Princessa Project

Dear Mr. Kofron and Mr. Mayer:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the federally listed as endangered least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Via Princessa Project. This letter describes the survey methods and results and is being submitted to the USFWS in accordance with protocol survey guidelines. It is being submitted to USFWS and CDFW as a condition of HELIX's Threatened and Endangered Species Permit ES-778195-15.

PROJECT LOCATION

The project site is generally located one mile west of State Route 14 and six miles east of Interstate 5 in the City of Santa Clarita, Los Angeles County, California (Figure 1, *Regional Location*). The project site is within Sections 20 and 29 of Township 4 North, Range 15 West of Mint Canyon, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2,*USGS Topography*). Specifically, the project site is located north of the intersection of Via Princessa and Weyerhauser Way (Figure 3, *Aerial Photograph*). The Metrolink railroad runs in an east-west direction through the southern portion of the project site. The project site is not located within USFWS-designated critical habitat for the species.

METHODS

HELIX biologists Matthew Dimson, Daniel Torres, and Cache Tucker conducted the survey, which consisted of eight site visits between April 10 and July 28, 2023 (Table 1, *Survey Information*), in accordance with the current USFWS survey protocol.[1] The visits were conducted at least 10 days apart, between the hours of sunrise and 11 a.m., within the specified survey period (April 10 to July 31)

[1] U.S. Fish and Wildlife Service (USFWS). 2001. Least Bell's Vireo Survey Guidelines. January 19.

pursuant to survey protocol. The biologists surveyed approximately 0.86 acre of suitable LBVI habitat within the project site, comprised of Fremont cottonwood forest and woodland and mule fat thickets (Figure 4, *2023 Least Bell's Vireo Survey Results*).

The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat in the project site while listening for LBVI and viewing birds with the aid of binoculars. The survey route was designed to ensure complete survey coverage of habitat potentially occupied by LBVI.

Table 1, *Survey Information* details the survey dates, times, and conditions.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist(s)	Time Start/End	Approx. Acres Surveyed/Acres per Hour	Start/Stop Weather Conditions
1	04/10/23	Matthew Dimson	1000/1100	0.86 ac/ 0.86 ac per hr*	67°F, wind 1-2 mph, 0% clouds 71°F, wind 3-5 mph, 0% clouds
2	04/24/23	Dan Torres	0630/0820	0.86 ac/ 0.47 ac per hr	54°F, wind 3-4 mph, 0% clouds 61°F, wind 3-4 mph, 0% clouds
3	05/15/23	Daniel Torres	0725/0905	0.86 ac/ 0.51 ac per hr	59°F, wind 1-2 mph, 60% clouds 67°F, wind 2-3 mph, 30% clouds
4	05/25/23	Cache Tucker	0930/1100	0.86 ac/ 0.57 ac per hr	55°F, wind 5-6 mph, 100% clouds 69°F, wind 7-8 mph, 90% clouds
5	06/05/23	Matthew Dimson	0915/1100	0.86 ac/ 0.49 ac per hr	60°F, wind 3-5 mph, 100% clouds 63°F, wind 3-5 mph, 100% clouds
6	07/06/23	Cache Tucker	0900/1045	0.86 ac/ 0.49 ac per hr	67°F, wind 3-5 mph, 0% clouds 73°F, wind 5-9 mph, 0% clouds
7	07/18/23	Daniel Torres	0830/0930	0.86 ac/ 0.86 ac per hr	77°F, wind 2-3 mph, 0% clouds 82°F, wind 3-4 mph, 0% clouds
8	07/28/23	Daniel Torres	0800/0920	0.86 ac/ 0.64 ac per hr	76°F, wind 1-2 mph, 0% clouds 83°F, wind 2-3mph, 0% clouds

* ac – acre; hr – hour

SURVEY RESULTS

LBVI was not detected during the survey effort (Figure 4). LBVI is presumed to be absent from the project site. The brown-headed cowbird (*Molothrus ater*), a nest parasite of the LBVI, was not detected during the survey effort.

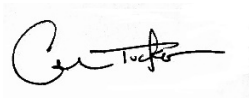
CERTIFICATION

I certify that the information in this survey report and attached exhibits fully and accurately represents my work. Please contact Lauren Singleton at (949) 573-9450 or Shelby Howard at (619) 462-1515 should you have any questions.

Sincerely,

Daniel Torres
Biologist

Matthew Dimson
Biologist

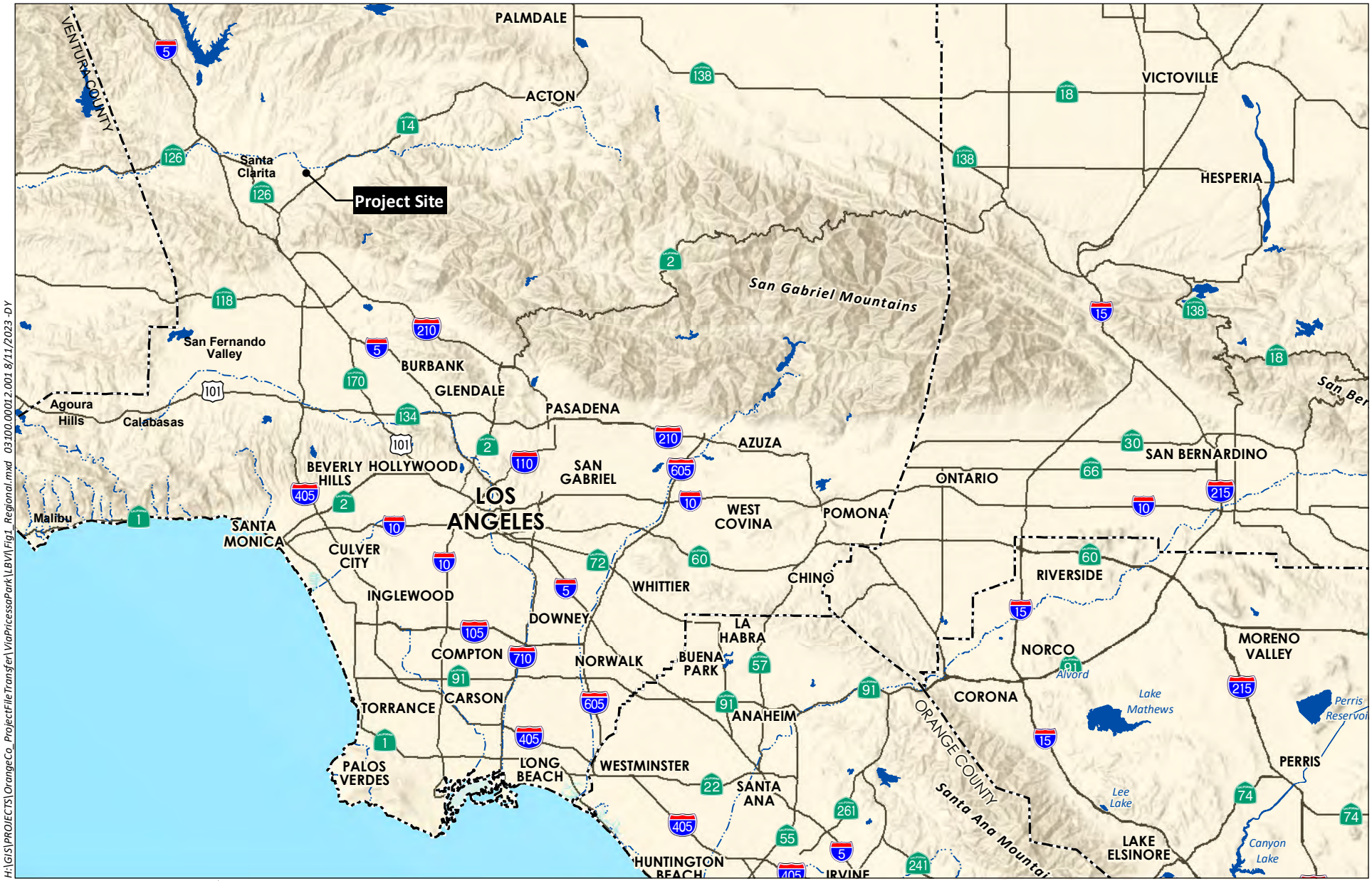


Cache Tucker
Biologist

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: 2023 Least Bell's Vireo Survey Results

Via Princessa Park



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0 10 Miles

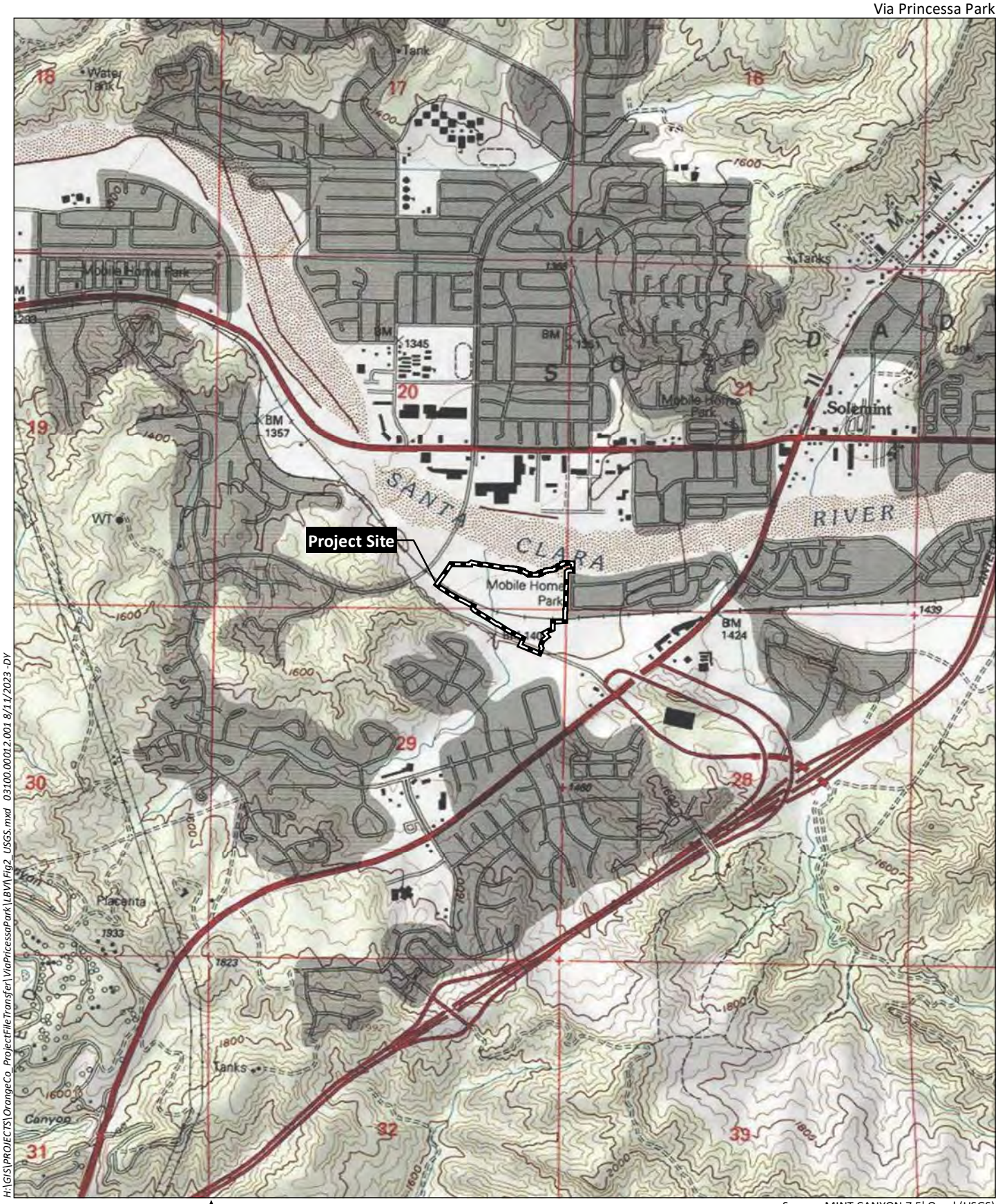
Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1

Via Princessa Park



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0 2,000 Feet

Source: MINT CANYON 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Via Princessa Park

Project Site

Whites Canyon Rd

Via Princessa

Weyerhauser Wy

Oak Branch Cir

Flowers Ct

Oak Crossing Rd

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0 200 Feet

N

Source: Aerial (Maxar, 2022)

HELIX Environmental Planning

Aerial Photograph

Figure 3

Via Princessa Park

Whites Canyon Rd

Via Princessa

Oak Branch Cir

Flowers Ct

Weyerhauser Wy

Project Site

Least Bell's Vireo Habitat

Fremont Cottonwood Forest and Woodland

Mulefat Thickets

Least Bell's vireo was not detected within the project site during the 2023 protocol-level survey effort

0 200 Feet

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Source: Aerial (Maxar, 2022)

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HELIX Environmental Planning

2023 Least Bell's Vireo Survey Results

Figure 4

Appendix G

Jurisdictional Delineation Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
Suite 150
Irvine, CA 92618
949.234.8792 **tel.**
619.462.0552 fax
www.**helixepi**.com

November 8, 2023 03100.00012.001

Ms. Leslie Frazier
Mr. Dan Duncan
City of Santa Clarita
23920 Valencia Boulevard
Santa Clarita, CA 91355

Subject: Jurisdictional Delineation Report for the Via Princessa Park Project

Dear Ms. Frazier and Mr. Duncan:

This letter presents the results of a jurisdictional delineation conducted by HELIX Environmental Planning, Inc. (HELIX) for the City of Santa Clarita's proposed Via Princessa Park Project (project). The delineation was conducted to identify and map existing areas within the project site that are "waters of the U.S." under U.S. Army Corps of Engineers (USACE) jurisdiction, pursuant to Section 404 of the Clean Water Act (CWA); "waters of the State" under Regional Water Quality Control Board (RWQCB) jurisdiction, pursuant to Section 401 of the CWA; and streambed habitats under California Department of Fish and Wildlife (CDFW) jurisdiction, pursuant to Section 1600 of the California Fish and Game Code (CFGC).

This report presents HELIX's summary of the aquatic resources delineated in the project site. The descriptions and maps provided are HELIX's jurisdictional recommendations based on the field evidence, regulations, and environmental information available. Only the regulatory agencies can make a final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulations.

PROJECT LOCATION

The project site is generally located one mile west of State Route 14 and six miles east of Interstate 5 in the City of Santa Clarita, Los Angeles County, California (Figure 1, *Regional Location*). The project site is within Sections 20 and 29 of Township 4 North, Range 15 West of Mint Canyon, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located north of the intersection of Via Princessa and Weyerhaeuser Way (Figure 3, *Aerial Photograph*). The Metrolink railroad runs in an east-west direction through the southern portion of the project site.

Immediate land uses surrounding the project site include a residential community and commercial development to the east, a golf course and residential community to the south, undeveloped land and Whites Canyon road to the west, and the Santa Clara River to the north.

PROJECT DESCRIPTION

The project proposes to construct and operate Via Princessa Park on an approximately 38-acre area of City-owned land, which would include athletic fields with sports field lighting, pickleball courts, playground equipment, and other recreational facilities, such as walking paths, shade structures, picnic areas, public art, and education and monument signage (Figure 4, *Site Plan*). Additionally, the project would provide parking, park access, and other amenities and improvements, including alterations to the existing Via Princessa Metrolink Station parking lot, potential maintenance-level improvements to the Metrolink Station platform facilities, construction of a pedestrian and vehicle (restricted access) railroad undercrossing (including removal of the existing at-grade pedestrian crossing), relocation of an existing storm drain line, construction of a new restroom building with associated utilities, improvements to the existing restroom/office building located in the parking area, landscaping and irrigation improvements, and restoration of the existing Honby drainage channel.

In addition to recreational improvements, the Project would include a regional stormwater infiltration facility. Other project civil and geotechnical design features include buried bank protection, a storm drain culvert extension, and channel restoration, as well as the removal of an agricultural well. Additionally, a fourth lane may be added to Weyerhaeuser Way, and modifications may be made to Via Princessa Road to accommodate a double-left turn lane into and/or out of Weyerhaeuser Way.

PROJECT SITE DESCRIPTION

The project site is directly adjacent to the Santa Clara River and was historically used for agriculture.[1] The northern portion of the project site is undeveloped and dominated by non-native upland mustard fields. Small patches of native upland habitat include big sagebrush, California buckwheat scrub, and rubber rabbitbrush scrub. The project site supports the southern bank of the Santa Clara River and two tributaries (Honby Channel and Tributary A), in addition to an unnamed drainage complex (Drainage A and Tributary A1). Riparian and alluvial habitats associated with the drainages include Fremont cottonwood forest and woodland, mule fat thickets, and scale broom scrub. The southern portion of the project site consists of the Via Princessa Metrolink Station and associated parking lot in addition to the railroad tracks that run east-west through the project site.

Elevations on the project site range from approximately 1,368 feet (417 meters) above mean sea level (AMSL) along the northern project boundary to approximately 1,416 feet (432 meters) AMSL in the southeastern corner. Four soil types are mapped on the project site, including Cortina sandy loam (0 to 2 percent slopes), Hanford sandy loam (0 to 2 percent slopes), sandy alluvial land, and Yolo loam (2 to 9 percent slopes; Figure 5, *Soils*).[2] The project site is surrounded by mobile homes in the eastern portion and a residential community in the western and southern portions of the project site.

[1] Historic Aerials. 2023. Aerial Imagery of the Via Princessa Park Project, 34.409766°, -118.470855°. Aerial Imagery from 1947. Available at: https://www.historicaerials.com/viewer. Accessed June 12, 2023.

[2] Natural Resources Conservation Service. 2023. Web Soil Survey. United States Department of Agriculture. Available from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed June 12, 2023.

METHODS

Before beginning fieldwork, aerial photographs (1 inch = 180 feet), topographic maps (1 inch = 180 feet), USGS quadrangle maps, and National Wetland Inventory were reviewed.[3] HELIX Senior Biologist and Regulatory Specialist Ezekiel Cooley and Regulatory Specialist Jessica Lee conducted the jurisdictional delineation fieldwork on November 14 and 15, 2022. Data collection was targeted in areas that were deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark (OHWM) and/or other surface indications of streambed hydrology. Representative photographs were taken of the drainage feature, which are included as Attachment A, *Representative Drainage Photographs*. Completed wetland determination data forms are included as Attachment B, *Wetland Determination Data Forms*, and representative soil pit photographs are provided as Attachment C, *Soil Pit Photographs*.

Delineation methods used to determine each agency's jurisdictional limits are discussed below.

U.S. Army Corps of Engineers

On May 25, 2023, the United States Supreme Court issued a decision in the case of *Sackett v. Environmental Protection Agency* (Supreme Court of the United States, 2023), which will ultimately influence how federal waters are defined. The May 25, 2023, Supreme Court decision in *Sackett v. Environmental Protection Agency* determined that "the CWA extends to only those 'wetlands with a continuous surface connection to bodies that are "waters of the United States" in their own right,' so that they are 'indistinguishable' from those waters."

On August 29, 2023, the U.S. Environmental Protection Agency issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule that was issued on January 18, 2023. The final rule was issued to conform the definition of federal waters to the Supreme Court's decision in *Sackett v. Environmental Protection Agency*. Targeted changes to the January 18, 2023 definition include:

1. "Interstate wetlands" was removed from the "interstate waters" definition (a)(1)(iii).
2. "Tributaries of waters" definition was revised by deleting the significant nexus standard (a)(3). The significant nexus standard is a test that clarifies if certain waterbodies are subject to the CWA based on their connection to and effect on larger downstream waters.
3. "Adjacent wetlands" definition was revised by deleting the significant nexus standard (a)(4).
4. "Additional waters" definition was revised by deleting the significant nexus standard (a)(5). "Intrastate streams and wetlands" were also removed from the definition of "additional waters."

Unless considered an exempt activity under Section 404(f) of the Federal CWA, any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the CWA (33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes.

[3] U.S. Fish and Wildlife Service. 2023. Wetlands Mapper. Available from: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed October 12, 2023 and November 10, 2023.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. obtain a state certification that the discharge complies with other provisions of CWA. The RWQCB administers the certification program in California and may require State Water Quality Certification (WQC) before other permits are issued.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found in 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there were no practicable alternative that would have less adverse impacts.

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 WQC. The State of California WQC Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that the issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within waters of the United States, and now also implements the State's wetland protection and hydromodification regulation program under the Porter-Cologne Water Quality Control Act.

On May 28, 2020, the SWRCB implemented the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California.[4] The Procedures consist of four major elements:

1. A wetland definition;
2. A framework for determining if a feature that meets the wetland definition is a water of the state;
3. Wetland delineation procedures; and,
4. Procedures for the submittal, review, and approval of applications for WQC and Waste Discharge Requirements for dredge or fill activities.

Under the Procedures and the State Water Code (Water Code §13050(e)), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State." "Waters of the State" include all "waters of the U.S."

[4] State Water Resources Control Board. 2021. State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Adopted April 2, 2019. Revised April 6, 2021.

More specifically, a wetland is defined as: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation." [5] The wetland definition encompasses the full range of wetland types commonly recognized in California, including some features not protected under federal law, and reflects current scientific understanding of the formation and functioning of wetlands.

Unless excluded by the Procedures, any activity that could result in the discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing an application under the Procedures.[5]

California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, that supports fish or wildlife. The CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow, if present. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses with surface or subsurface flow that supports riparian vegetation" (CFGC Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Jurisdictional limits for CDFW streambeds were defined by the top of bank. Vegetated CDFW habitats were mapped at the limits of streambed-associated vegetation, if present.

RESULTS

Based on the results of the jurisdictional delineation, the project site supports a portion of the Santa Clara River and two tributaries (Honby Channel and Tributary A). The project site also contains an unnamed drainage complex (Drainage A and Tributary A1). Approximately 2.086 acres of USACE waters of the U.S., 2.139 acres of RWQCB waters of the State, and 3.269 acres of CDFW streambed and associated vegetation were delineated within the project site (Figure 6, *Jurisdictional Features*; Table 1, *Existing Jurisdictional Features* below). A small area in the upstream portion of Honby Channel was identified as wetlands (0.030 acre). The drainage features are described in detail below.

Table 1
EXISTING JURISDICTIONAL FEATURES[1]

Drainage	USACE (acres)[2]	RWQCB (acres)[2]	CDFW (acres)[2,4]
Santa Clara River	1.115	1.115	1.355
Honby Channel	0.956 (0.030)[3]	0.956 (0.030)[3]	1.615
Tributary A	0.015	0.015	0.030

[5] State Water Resources Control Board. 2021. State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Adopted April 2, 2019. Revised April 6, 2021.

Drainage	USACE (acres)[2]	RWQCB (acres)[2]	CDFW (acres)[2,4]
Drainage A	0.000	0.049	0.229
Tributary A1	0.000	0.004	0.040
TOTAL	**2.086 (0.030)[3]**	**2.139 (0.030)[3]**	**3.269**

1 Jurisdictional acreages overlap and are not additive (e.g., USACE/RWQCB acreages are included in the CDFW acreages).
2 Acreages are rounded to the nearest thousandth of an acre.
3 Acreages in parentheses indicate jurisdictional acreages that were identified as a three-parameter wetland. Wetland acreages are a subset of the total acreage and are not additive.
4 Acreages are for streambed and associated riparian vegetation.

Santa Clara River

The southern bank of the Santa Clara River occurs within the northern portion of the project site. The Santa Clara River is the largest river system in southern California that has remained primarily undeveloped.[6] The Santa Clara River Watershed is 1,030 square miles within Los Angeles and Ventura Counties. The headwaters of the Santa Clara River originate in the San Gabriel Mountains near the community of Acton, approximately 22 miles east of the project site. The Santa Clara River flows east to west within and adjacent to the project site, ultimately draining into the Pacific Ocean approximately 47 miles southwest of the project site. The portion of the Santa Clara River that occurs within the project site consists of a flat, sandy floodplain that remains dry through most of the year, except immediately after large rain events. This portion of the river is dominated by scalebroom scrub and unvegetated riverwash. Mapped soils within the portion of the Santa Clara River that occurs within the project site include Cortina sandy loam (0 to 2 percent slopes), Handford sandy loam (0 to 2 percent slopes), and sandy alluvial land (Figure 5).[7]

Within the project site, the Santa Clara River supports approximately 1.355 acres of CDFW jurisdictional streambed and associated riparian vegetation, which include 1.115 acres of USACE jurisdictional waters of the U.S. and RWQCB jurisdictional waters of the State (Figure 6; Table 1 above).

Honby Channel

Honby Channel is a tributary to the Santa Clara River, flowing south to north through the central portion of the project site. Honby Channel divides the eastern and western portions of the project site. The headwaters initiate within undeveloped hillsides approximately 1.5 miles southwest of the project site. Runoff from the hillsides are directed into a culvert adjacent to the terminus of Rainbow Glen Drive. Honby Channel remains underground for roughly 1,000 linear feet (LF), surfacing near the intersection of Avenue of the Oaks and Green Terrace Drive within the Friendly Valley Senior Living Community. At this location, Honby Channel exists as a concrete channel, meandering east/northeast through the Friendly Valley Senior Living Community and associated golf course for approximately 1.0 mile. The channel continues underground via a triple box culvert that extends underneath Via Princessa Drive. Honby Channel surfaces on the project site north of the Metrolink railroad tracks. When flowing, water

6 Los Angeles County Public Works. 2023. Santa Clara Watershed. Available from: http://www.ladpw.org/wmd/watershed/sc/#:~:text=The%20Santa%20Clara%20River%20is,miles%20to%20the%20Pacific%20Ocean. Accessed October 12, 2023.
7 Natural Resources Conservation Service. 2023. Web Soil Survey. United States Department of Agriculture. Available from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed June 12, 2023.

travels at a high velocity through the culvert, as indicated by scouring observed near the outlet. The channel and existing culvert have experienced an accumulation of sediment over an approximately 200-foot section of the channel, which has backed up sediment into the existing culvert and reduced the culvert's hydraulic capacity. Soil pits were examined at the most saturated locations within Honby Channel (Figure 6; Attachment B; Attachment C). A small area that supports wetlands was identified immediately downstream of the culvert outlet. Vegetation at the upstream end of the Honby Channel consists of riparian vegetation, including Fremont cottonwood forest and woodland and mule fat thickets. The downstream portion is mostly unvegetated riverwash with some scale broom scrub near its confluence with the Santa Clara River. Mapped soils within Honby Channel include Cortina sandy loam (0 to 2 percent slopes) and Handford sandy loam (0 to 2 percent slopes; Figure 5).[8]

Within the project site, Honby Channel supports approximately 1.615 acres of CDFW jurisdictional streambed and associated riparian vegetation, which include 0.956 acre of USACE jurisdictional waters of the U.S. and RWQCB jurisdictional waters of the State (Figure 6; Table 1 above). Of these jurisdictional acreages, 0.030 acre was determined to be wetlands.

Tributary A

Tributary A is a small tributary to the Santa Clara River in the north-central portion of the project site. The tributary initiates on the project site, traveling south to north for approximately 215 LF. Tributary A consists of unvegetated riverwash. There is a high level of human disturbance due to the presence of two unpermitted encampments. Mapped soil within Tributary A consists of Handford sandy loam (0 to 2 percent slopes; Figure 5).[7]

Within the project site, Tributary A supports approximately 0.030 acre of CDFW jurisdictional streambed, which include 0.015 acre of USACE jurisdictional waters of the U.S. and RWQCB jurisdictional waters of the State (Figure 6; Table 1 above).

Drainage A

Drainage A is a small drainage in the southeastern corner of the project site, likely conveying subsurface flow from the surrounding development. Drainage A surfaces on the project site near Weyerhaeuser Way. The drainage travels from south to north for approximately 190 LF and subsequently crosses under the Metrolink railroad via a concrete pipe culvert. The drainage outlets on the north side of the railroad. The soil at the culvert outlet is extremely sandy and drains quickly. Sheetflow from the culvert was observed adjacent to the culvert during and immediately after rain events in the 2022/2023 rainy season. However, no discernable flow indicators were observed beyond the culvert outlet following any of the 2022/2023 large rain events. Vegetation within Drainage A consists mostly of mule fat scrub, except at the culvert outlet, which is regularly maintained and was mostly unvegetated. Vegetation that was identifiable was non-native grass species and forbs. Mapped soils within Drainage A consist of Cortina sandy loam (0 to 2 percent) and Handford sandy loam (0 to 2 percent slopes; Figure 5).[7]

Within the project site, Drainage A supports approximately 0.229 acre of CDFW jurisdictional streambed and associated riparian vegetation, which include 0.049 acre of RWQCB jurisdictional waters of the State (Figure 6; Table 1 above). Because Drainage A is an isolated feature and surface flows do not connect to

[8] Natural Resources Conservation Service. 2023. Web Soil Survey. United States Department of Agriculture. Available from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed June 12, 2023.

relatively permanent waters, this feature does not likely support waters of the U.S. This determination would be made by USACE via an Approved Jurisdictional Determination, at the discretion of USACE.

Tributary A1

Tributary A1 is a small tributary to Drainage A in the southeastern corner of the project site. Tributary A1 surfaces on the project site near Weyerhaeuser Way, extending approximately 60 feet and subsequently drains into Drainage A. Vegetation within Drainage A consists of mule fat scrub. Mapped soils within Drainage A consist of Cortina sandy loam (0 to 2 percent) and Handford sandy loam (0 to 2 percent slopes; Figure 5).[9]

Within the project site, Tributary A1 supports approximately 0.040 acre of CDFW jurisdictional streambed and associated riparian vegetation, which include 0.004 acre of RWQCB jurisdictional waters of the State (Figure 6; Table 1 above). Because Tributary A1 is an isolated feature and surface flows do not connect to relatively permanent waters, this feature does not likely support waters of the U.S. This determination would be made by USACE via an Approved Jurisdictional Determination, at the discretion of USACE.

PERMITTING OVERVIEW

Federal Permitting

Impacts to waters of the U.S. are regulated by the USACE under Section 404 of the CWA (33 USC 401 et seq.; 33 USC 1344; USC 1413; and Department of Defense, Department of the Army, Corps of Engineers 33 CFR Part 323). A federal CWA Section 404 Permit would be required for the project to place fill in waters of the U.S.

The final determination of the extent of USACE's jurisdiction in the review area pursuant to Section 404 of the federal CWA will depend on the results of verification by the USACE/delineation concurrence. Areas deemed jurisdictional will be subject to the regulatory requirements of the federal CWA, including permitting and mitigation, as required.

State Permitting

Regional Water Quality Control Board

A CWA Section 401 WQC, which is administered by the RWQCB or SWRCB, must be obtained to certify any 404 Permit. Pursuant to the Porter-Cologne Water Quality Act, Waste Discharge Requirements (WDR) must be obtained for impacts to non-federal waters through the preparation and submittal of a State Water Resources Control Board Report of Waste Discharge.

California Department of Fish and Wildlife

Impacts to CDFW jurisdictional habitats are regulated by CDFW under Sections 1600-1603 of the CFGC. The CDFW requires a Streambed Alteration Agreement (SAA) for projects that will divert or obstruct the natural flow of water; change the bed, channel, or bank of any stream; or use any material from a

[9] Natural Resources Conservation Service. 2023. Web Soil Survey. United States Department of Agriculture. Available from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed June 12, 2023.

streambed. The SAA is a contract between the applicant and CDFW stating what activities can occur in the riparian zone and stream course.

CONCLUSION

The project will require permanent impacts to wetland and non-wetland waters of the U.S. subject to regulatory jurisdiction of the USACE under Section 404 of the CWA, RWQCB under Section 401 of the CWA, and CDFW under Sections 1600 *et seq*. of CFGC. Based on the results of the jurisdictional delineation, the project site supports approximately 2.086 acres of potential USACE waters of the U.S., 2.139 acres of RWQCB waters of the State, and 3.269 acres of CDFW streambed and associated vegetation (Figure 6). Of these jurisdictional acreages, 0.030 acre was determined to be wetlands. The projects require obtaining a Section 404 permit through USACE, a Section 401 WQC through RWQCB, and a Section 1602 SAA through CDFW before project impacts.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley at EzekielC@helixepi.com or Lauren Singleton at LaurenS@helixepi.com.

Sincerely,

Ezekiel Cooley
Senior Biologist/Senior Regulatory Specialist

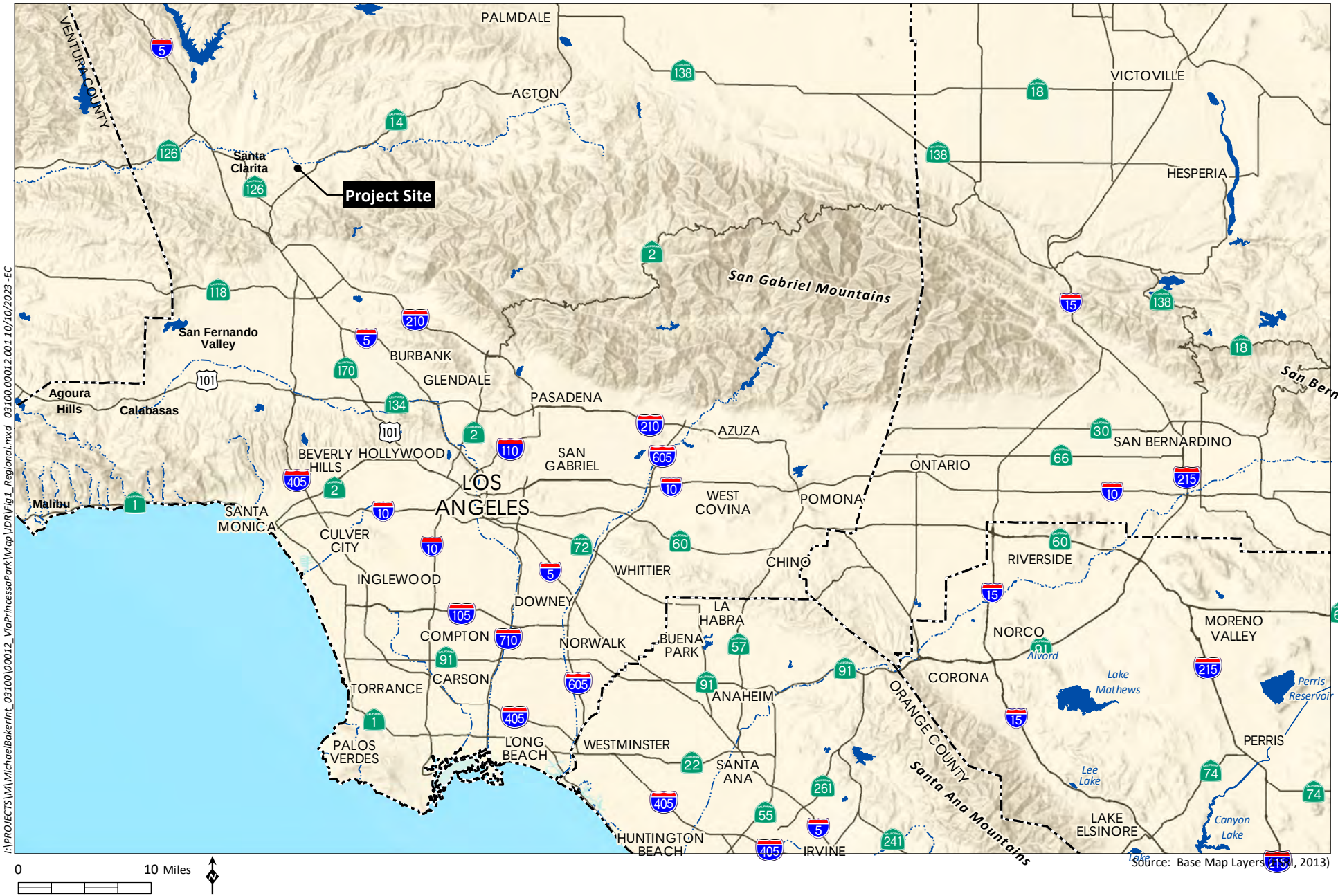
Lauren Singleton
Senior Biology Project Manager

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Site Plan
Figure 5: Soils
Figures 6: Jurisdictional Features
Attachment A: Representative Drainage Photographs
Attachment B: Wetland Determination Data Forms
Attachment C: Soil Pit Photographs

Figures

Via Princessa Park



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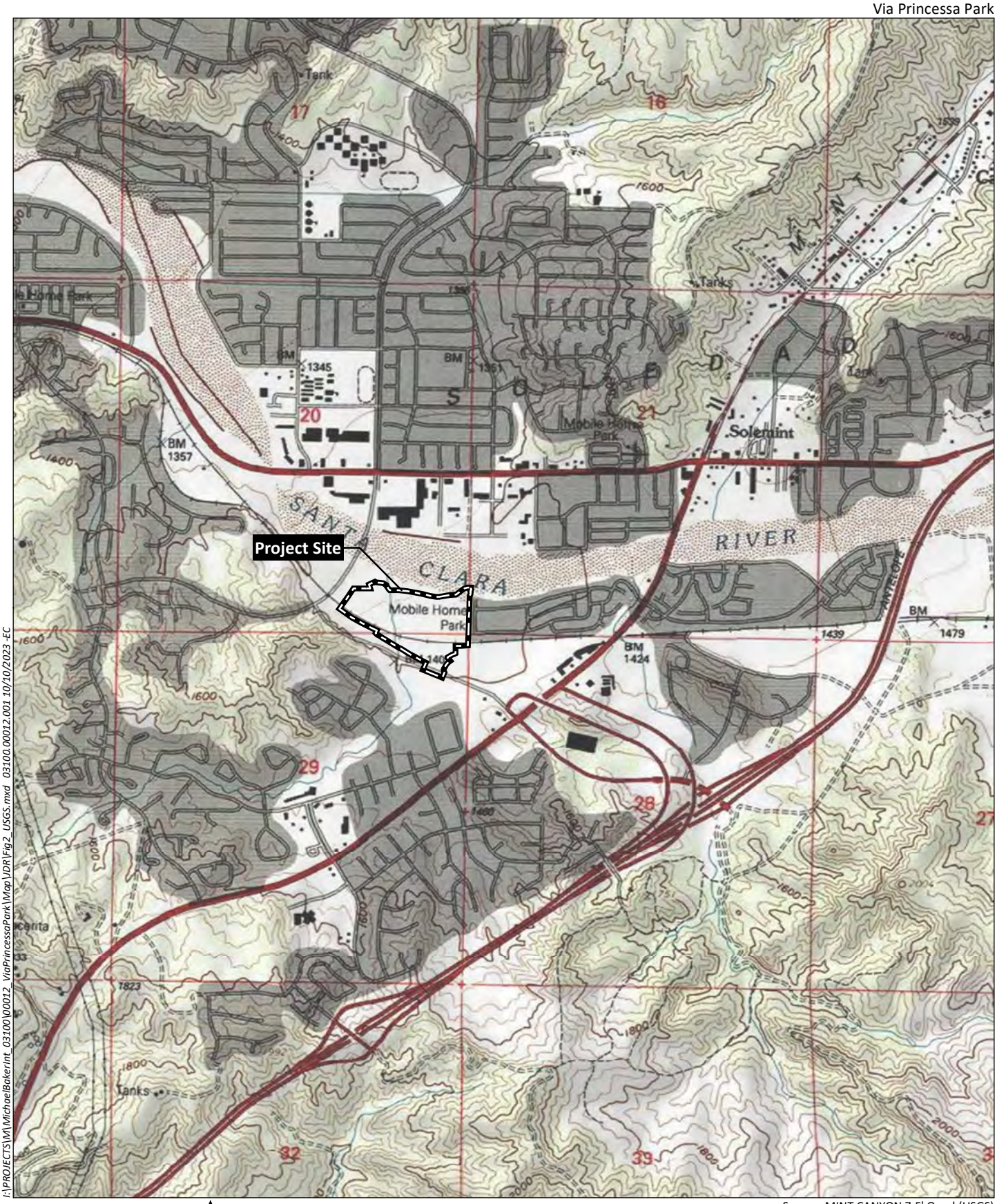
HELIX Environmental Planning

Regional Location

Figure 1

Via Princessa Park



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0 2,000 Feet

Source: MINT CANYON 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Via Princessa Park

0 350 Feet

Source: Aerial (Maxar, 2022)

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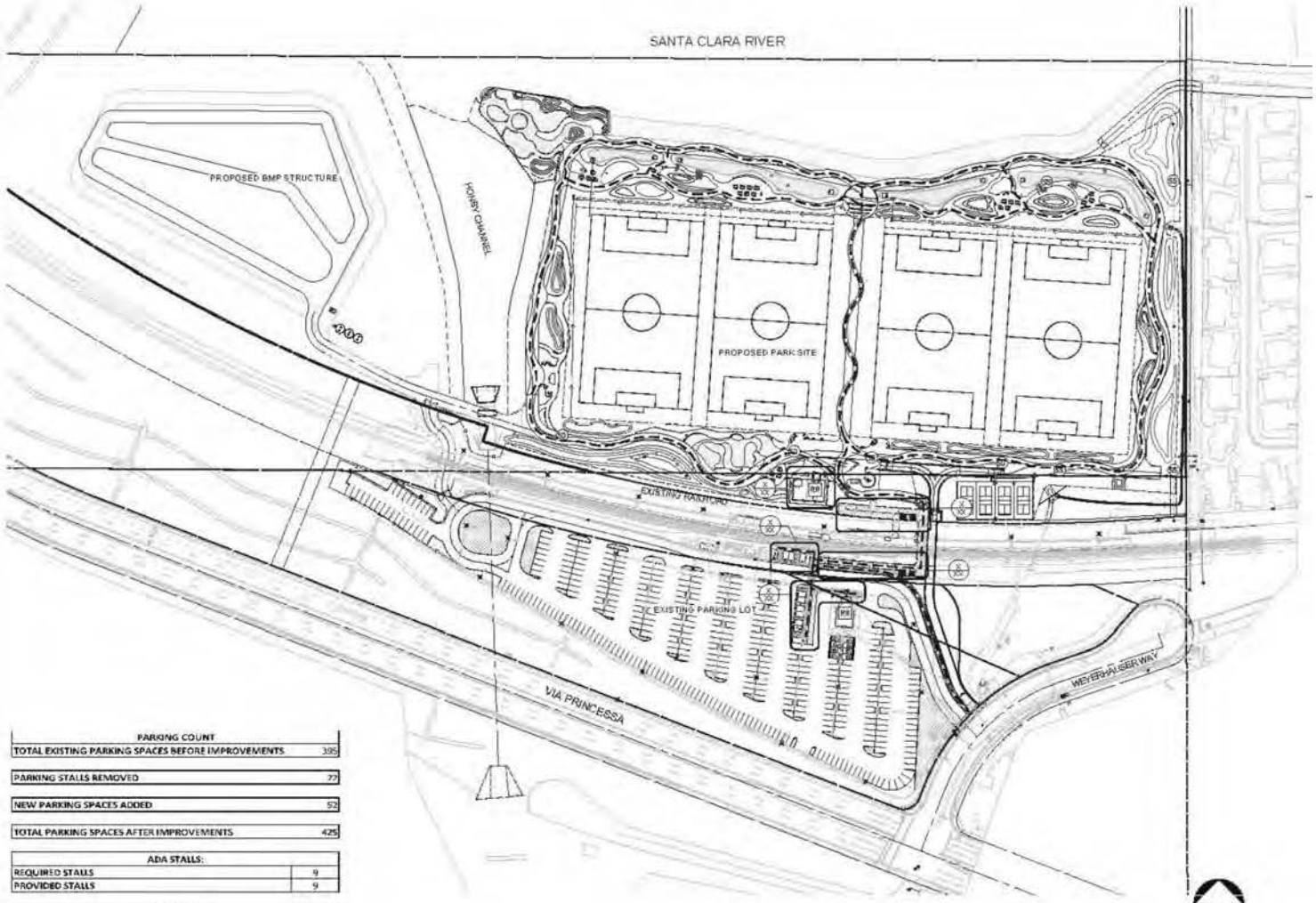
HELIX Environmental Planning

Aerial Photograph

Figure 3



PARKING COUNT	
TOTAL EXISTING PARKING SPACES BEFORE IMPROVEMENTS	395
PARKING STALLS REMOVED	77
NEW PARKING SPACES ADDED	52
TOTAL PARKING SPACES AFTER IMPROVEMENTS	425

ADA STALLS:	
REQUIRED STALLS	9
PROVIDED STALLS	9

EV STALLS:	
EV CAPABLE SPACES PROVIDED	10
EV CHARGERS INSTALLED	3

CITY OF SANTA CLARITA
APPROVED
FOR
GRADING AND DRAINAGE
UNDER TITLE 17
UNIFIED DEVELOPMENT CODE
BY: _____
DATE: _____

THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES. IT IS UNLAWFUL TO MAKE ANY CHANGES OR ALTERATIONS ON SAME, WITHOUT WRITTEN PERMISSION FROM THE ENGINEERING SERVICES DIVISION.

THE STAMPING OF THESE PLANS AND SPECIFICATIONS SHALL NOT BE USED AS A SUBSTITUTE FOR PERMIT OR MEANT AS AN APPROVAL OF ANY VIOLATION OF THE PROVISIONS OF ANY CITY OR COUNTRY ORDINANCE OR STATE LAW.

PLANS PREPARED FOR:
CITY OF SANTA CLARITA
23920 VALENCIA BLVD., SUITE 300
SANTA CLARITA, CA 91355
(661) 255-4949

PLANS PREPARED BY:
PSOMAS
27220 Tourney Lane, Suite 150
Valencia, CA 91355
(661) 678-8300 (661) 775-0715 fax
www.psomas.com

PLANS PREPARED UNDER THE DIRECTION OF:

No. C75673
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

IN ACCORDANCE WITH RESOLUTION No. 19-6, AS A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CLARITA DELEGATING DISCRETIONARY AUTHORITY TO THE DIRECTOR OF PUBLIC WORKS, DIRECTOR OF RECREATION AND COMMUNITY SERVICES, DIRECTOR OF NEIGHBORHOOD SERVICES, CITY ENGINEER, AND ASSISTANT CITY ENGINEERS TO APPROVE PLANS AND DESIGNS FOR THE CONSTRUCTION OF OR IMPROVEMENTS TO PUBLIC PROPERTY FOR PURPOSES OF DESIGN IMMUNITY PURSUANT TO GOVERNMENT CODE SECTION 830.6 FOR THE CITY OF SANTA CLARITA, I DO HEREBY EXERCISE THE MODIFICATION TO THE PLAN OR DESIGN, OR A CONSTRUCTION OF, OR AN IMPROVEMENT TO THE PUBLIC FACILITY, STRUCTURE, OR PROPERTY TO WHICH THIS

REVISION	REVISED BY	APPROVED BY	DATE

CITY OF SANTA CLARITA
VIA PRINCESSA PARK
ACCESSIBILITY SITE PLAN

SCALE: AS SHOWN
DATE: 08/2023
JOB NO.: 19AN271102
SHEET: G-0.10

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Source:Psomas, 2023

HELIX Environmental Planning

Site Plan

Figure 4

Via Princessa Park

Whites Canyon Road

Southern Pacific Railroad

Via Princessa

Weyerhaeuser Way

Project Site

Soils

- CyA - Cortina sandy loam, 0 to 2 percent slopes
- GaF2 - Gaviota rocky sandy loam, 30 to 50 percent slopes, eroded
- HcA - Hanford sandy loam, 0 to 2 percent slopes
- MfA - Metz loamy sand, 0 to 2 percent slopes
- Rg - Riverwash
- Sa - Sandy alluvial land
- ScF2 - Saugus loam, 30 to 50 percent slopes, eroded
- YoC - Yolo loam, 2 to 9 percent slopes

0 350 Feet

N

Source: Base Map Layers (MAXAR, 2022; NRCS, 2003)

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HELIX Environmental Planning

Soils

Figure 5

Via Princessa Park

Whites Canyon Road

Santa Clara River

Honby Channel

Tributary A

Southern Pacific Railroad

Inset Map

SP1 SP2 SP3 SP4 SP5

0 75 Feet

Drainage A

Tributary A1

Weyerhaeuser Way

Via Princessa

- Project Site
- Soil Pit Locations
- Drainage Photograph Locations
- Pipe

Jurisdictional Features

- RWQCB Jurisdiction
- USACE/RWQCB Jurisdiction
- Wetland
- CDFW Jurisdiction

0 150 Feet

N

Source: Aerial (Near Map, 2023)

I:\PROJECTS\W\MichaelBakerInt_03100\00012_ViaPrincessaPark\Map\BTR\Fig6_JD_100623.mxd 03100.00012.001 10/26/2023 -EC

HELIX Environmental Planning

Jurisdictional Features

Figure 6

Attachment A

Representative Drainage Photographs

Photo 1: View of the upstream portion of Honby Channel, facing south. Sediment accumulation and erosional issues can be seen.

Photo 2: View of the middle portion of Honby Channel, facing southeast.

Photo 3: View of the downstream portion of Honby Channel where it connects to the Santa Clara River, facing northwest.

Photo 4: View of Tributary A, facing north.

*See Figure 6 for photo locations.

Photo 5: View of the downstream terminus of Drainage A, facing east.

Photo 6: View of the upstream portion of Drainage A, facing northwest.

*See Figure 6 for photo locations

Attachment B

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Via Princessa Park City/County: Santa Clarita/Los Angeles Sampling Date: 11/14/22

Applicant/Owner: City of Santa Clarita State: CA Sampling Point: SP1

Investigator(s): Ezekiel Cooley, Jessica Lee Section, Township, Range: S20 T4N R15W

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR): Mediterranean CA (LRRC) Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Hanford sandy loam NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	60	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 60	x 2 =	120
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 60 (A)		120 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Soil pit is located at outlet of box culvert. No herbaceous vegetation was present due to scour. Salix laevigata canopy present throughout plot.

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 3/2	100					loamy sand	
2-6	10 YR 2/1	100					loamy sand	organic material present
6-18	10 YR 2/1	100					sandy loam	soil heavily saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ✓ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

Hydrogen sulfide present at surface. Soil pit is located on top of an existing grouted rip rap pad. Overburden of approximately 18 inches was present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ✓ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Via Princessa Park City/County: Santa Clarita/Los Angeles Sampling Date: 11/14/22

Applicant/Owner: City of Santa Clarita State: CA Sampling Point: SP2

Investigator(s): Ezekiel Cooley, Jessica Lee Section, Township, Range: S20 T4N R15W

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR): Mediterranean CA (LRRC) Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Hanford sandy loam NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	100	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 100	x 2 =	200
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Soil pit is located 30 feet downstream of SP1. No herbaceous vegetation due to scour.

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 3/2						loamy sand	
2-6	10 YR 2/1						loamy sand	organic material present
6-18	10 YR 2/1						sandy loam	soil heavily saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✓

Remarks:

No redox. Soil pit is located on top of an existing grouted rip rap pad. Overburden of approximately 18 inches was present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Via Princessa Park City/County: Santa Clarita/Los Angeles Sampling Date: 11/14/22

Applicant/Owner: City of Santa Clarita State: CA Sampling Point: SP3

Investigator(s): Ezekiel Cooley, Jessica Lee Section, Township, Range: S20 T4N R15W

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR): Mediterranean CA (LRRC) Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Hanford sandy loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus fremontii	90		FAC
2.			
3.			
4.			
	90 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Baccharis salicifolia	5		FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 95	x 3 =	285
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

No herbaceous vegetation due to heavy scouring.

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100					sandy	
12-18	7.5 YR 4/1	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:

No redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

heavy scour

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Via Princessa Park City/County: Santa Clarita/Los Angeles Sampling Date: 11/14/22

Applicant/Owner: City of Santa Clarita State: CA Sampling Point: SP4

Investigator(s): Ezekiel Cooley, Jessica Lee Section, Township, Range: S20 T4N R15W

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR): Mediterranean CA (LRRC) Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Hanford sandy loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	40	Y	FACW
2. Populus fremontii	5	Y	FAC
3.			
4.			
	45	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species 40	x 2 =	80
FAC species 5	x 3 =	15
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: 45 (A)		95 (B)

Prevalence Index = B/A = 2.1

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

No herbaceous vegetation due to heavy scouring.

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 2/2	100					loamy sand	prominent organic material and roots
3-5	10 YR 4/2	100					loamy sand	
5-18	10 YR 4/2	100					sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:

No redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 3

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Via Princessa Park City/County: Santa Clarita/Los Angeles Sampling Date: 11/14/22

Applicant/Owner: City of Santa Clarita State: CA Sampling Point: SP5

Investigator(s): Ezekiel Cooley, Jessica Lee Section, Township, Range: S20 T4N R15W

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR): Mediterranean CA (LRRC) Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Hanford sandy loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Baccharis salicifolia	5	Y	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 5	x 3 =	15
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 5 (A)		15 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Mature tree canopy is not present. Channel heavily scoured. Some shrubs persisting in channel.

SOIL

Sampling Point: SP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 4/2	100					silty clay	
3-18	10 YR 4/2	100					loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

No redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Attachment C

Soil Pit Photographs

Soil Pit 1

Soil Pit 2

*See Figure 6 for soil pit locations.

Soil Pit 3

Soil Pit 4

*See Figure 6 for soil pit locations.

Soil Pit 5

*See Figure 6 for soil pit locations.

Appendix H

Tree Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road, Suite 150
Irvine, CA 91942
949.234.8770 tel
619.462.1515 fax
www.helixepi.com

October 10, 2023 03100.00012.001

Ms. Leslie Frazier
Mr. Dan Duncan
City of Santa Clarita
23920 Valencia Boulevard
Santa Clarita, CA 91355

Subject: Tree Survey Report for the Via Princessa Park Project

Dear Ms. Frazier and Mr. Duncan:

HELIX Environmental Planning, Inc. (HELIX) prepared this report to document the results of a tree survey conducted for the proposed Via Princessa Park Project (project) located in the City of Santa Clarita (City), Los Angeles County, California. The purpose of this report is to provide an inventory of trees with a diameter at breast height (DBH) of two inches or greater that occur within the project site and 50 feet of the project site and to determine the presence of protected oak trees as defined under the City's Oak Tree Preservation Ordinance (17.51.040; ordinance).

PROJECT LOCATION

The project site is generally located one mile west of State Route 14 and six miles east of Interstate 5 in the City of Santa Clarita, Los Angeles County, California (Figure 1, *Regional Location*). The project site is within Sections 20 and 29 of Township 4 North, Range 15 West of Mint Canyon, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located north of the intersection of Via Princessa and Weyerhaeuser Way (Figure 3, *Aerial Photograph*). The Metrolink railroad runs in an east-west direction through the southern portion of the project site.

Immediate land uses surrounding the project site include a residential community and commercial development to the east, a golf course and residential community to the south, undeveloped land and Whites Canyon road to the west, and the Santa Clara River to the north.

REGULATORY FRAMEWORK

The City's Oak Tree Preservation ordinance states, "No person shall cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak tree on any public or private

property within the City."[1] The protected zone of the oak trees (*Quercus* spp.) includes the area within five feet of the dripline (canopy extent), but no less than 15 feet from the trunk. An Oak Tree Permit must be obtained prior to removal of oak tree(s) or major encroachment within its protected zone. Trees subject to the permit include all trees of the oak species exceeding six inches in circumference when measured at a point 4.5 feet above the tree's natural grade. Encroachment is intrusion into the protected zone of an oak tree, which includes but is not limited to, intrusion by trenching, paving, pruning, dumping, parking of commercial vehicles. Major encroachment is defined by the City's ordinance as "an area between the outer edge of the trunk and fifty percent of the diameter of the protected zone" and minor encroachment is defined as "an area between the outermost edge of the protected zone and fifty percent of the diameter of the protected zone" (City 2013).

Heritage Oak Trees are given special consideration and may be fully protected or subject to requirements stricter than those of a standard protected oak tree. A Heritage Oak Tree is defined as any oak tree measuring 108 inches in circumference when measured 4.5 feet above the tree's natural grade. In the case of trees with multiple trunks, two or more trunks each must measure 72 inches or greater in circumference when measured 4.5 feet above the tree's natural grade.

To obtain an Oak Tree Permit, an application must be submitted to the City Manager or designated representative ("Director") and a filing fee as established by the City Council must be paid. The conditions of the Oak Tree Permit may include replacement or relocation of trees, or payment of a fee based on the International Society of Arboriculture's (ISA) "Guide for Plant Appraisal."

In addition to oak trees, all trees within the project site with a diameter of two inches or greater were also surveyed.

METHODS

HELIX ISA Certified Arborist Daniel Torres (WE-12249) and HELIX Biologist Taylor Chase completed the tree survey on December 13 and December 15, 2022. The tree survey was performed within the project site and a 50-foot buffer area that was designed by the City in coordination with the City's Urban Forestry Office (i.e., additional survey area; Figure 3). Throughout this report, the project site and additional survey area are collectively referred to as the "survey area." The purpose of the survey was to document the presence of: (1) oak trees with at least one trunk over six inches in circumference at a point 4.5 feet above natural grade; (2) Heritage Oak Trees; and (3) other trees with a diameter of two inches or greater at DBH.

All trees within the survey area that satisfied the previously mentioned criteria were identified to species. For oak trees, the circumference at a point 4.5 feet above natural grade was measured. For all other trees, the diameter at a point 4.5 feet above natural grade (i.e., DBH) was measured. For trees with co-dominant stems at 4.5 feet above natural grade, the diameter (circumference for oak trees) of each stem was measured at this height. The height of each tree was then estimated, and an aluminum tag with a unique number was affixed to the north side of the tree approximately three feet above

[1] Santa Clarita, City of. 2013. Oak Tree Preservation. Ordinance No. 17.51.040. Santa Clarita Municipal Code. Adopted December 1987, revised in 2013. Available from: https://www.codepublishing.com/CA/SantaClarita. Accessed December 7, 2022.

natural grade. Trees located outside of the project site but located within the additional survey area were not tagged since the City does not own this property. For oak trees, the canopy extent was estimated at the four cardinal and four intercardinal directions (north, northeast, east, southeast, south, southwest, west, and northwest). For all other trees, the average canopy radius was estimated. The location of each tree trunk was recorded with a Global Positioning System device with sub-meter accuracy. The collected data are not considered survey-grade accuracy and should not be used for construction purposes.

Physical and horticultural evaluations were performed for each tree according to the City's Oak Tree Preservation and Protection Guidelines.[2] The physical evaluation included the assessment of structure, terrain, and general appearance. The horticultural evaluation included the detection of any disease or pathogens and an assessment of the tree's overall vigor. The physical and horticultural evaluations were used to rate each tree on a scale ranging from A to F, as outlined in the City's Preservation and Protection Guidelines. The rating system is reproduced below in Table 1, *Oak Tree Rating System*. Although this rating system was written for oak trees, it was used for all trees during the survey. Representative site and tree photographs are included as Attachment A, *Representative Photographs* and data collected during the survey is included in Attachment B, *Tree Survey Data*.

Table 1
OAK TREE RATING SYSTEM

Rating	Description
A – Outstanding	A healthy and vigorous tree characteristic of its species and reasonably free of any visible signs of stress, disease or pest infestation.
B – Above Average	A healthy and vigorous tree with minor visible signs of stress, disease or pest infestation.
C – Average	Although healthy in overall appearance there is an abnormal amount of stress or disease and/or pest infestation.
D – Below Average/Poor	This tree is characterized by exhibiting a greater degree of stress, disease and/or pest infestation than normal and appears to be in a state of rapid decline. The degree of decline may vary greatly in signs of dieback, disease and pest infestation and appears to be in an advanced state of decline.
F – Dead	This tree exhibits no signs of life whatsoever.

Source: City of Santa Clarita (1990)

OAK TREE SURVEY RESULTS

Five oak trees subject to an Oak Tree Permit were located within the survey area (Figure 4, *Oak Tree Locations*; Table 2, *Oak Tree Survey Results*). These included four coast live oaks (*Quercus agrifolia*) and one interior live oak (*Quercus wislizeni*; see Photo 5 in Attachment A). The four coast live oaks were

[2] Santa Clarita, City of. 1990. Oak Tree Preservation and Protection Guidelines. Adopted September 1990. Available from: https://www.santa-clarita.com/home/showdocument?id=10121. Accessed September 14, 2023.

assigned a rating of A (Outstanding) while the interior live oak was assigned a rating of B (Above Average; Attachment B). The interior live oak had woolly oak galls, which appear as small, pubescent, tan-colored growths on the underside of the leaves. No other oak trees, including Heritage Oak Trees, were observed during the survey. Overall, the oak trees exhibited good branching structure, full canopies, and vigorous growth.

Table 2
OAK TREE SURVEY RESULTS

Species	Number of Trees Surveyed
coast live oak (*Quercus agrifolia*)	4
interior live oak (*Quercus wislizeni*)	1
TOTAL	**5**

GENERAL TREE SURVEY RESULTS

Eighty-seven trees that are not protected under the City's Ordinance were also recorded within the survey area (Figure 5, *General Tree Locations*; Table 3, *General Tree Survey Results*). Of these trees, three native tree species were identified. These included 25 Fremont cottonwoods (*Populus fremontii*), one Goodding's willow (*Salix gooddingii*), and 15 red willows (*Salix laevigata*). The Fremont cottonwoods and red willows (forty trees total) are riparian trees associated with Honby Channel, which is a tributary to the Santa Clara River, located northwest of the Via Princessa Metrolink Station. The Goodding's willow was observed in a smaller drainage system located in the additional survey buffer to the southeast of the project site. The remaining trees consisted of non-native tree species, including three African sumacs (*Searsia lancea*), eight Australian willows (*Geijera parviflora*), five black locust (*Robinia pseudoacacia*), one carrotwood (*Cupaniopsis anacardioides*), two Chinese pistaches (*Pistachia chinensis*), three crapemyrtles (*Lagerstroemia indica*), 17 London plane trees (*Platanus x hispanica*), and seven Mexican fan palms (*Washingtonia robusta*).

Table 3
GENERAL TREE SURVEY RESULTS

Species	Number of Trees Surveyed
African sumac (*Searsia lancea*)	3
Australian willow (*Geijera parviflora*)	8
black locust (*Robinia pseudoacacia*)	5
carrotwood (*Cupaniopsis anacardioides*)	1
Chinese pistache (*Pistachia chinensis*)	2
crapemyrtle (*Lagerstroemia indica*)	3
Fremont cottonwood (*Populus fremontii*)*	25
Goodding's willow (*Salix gooddingii*)*	1
London plane (*Platanus x hispanica*)	17
Mexican fan palm (*Washingtonia robusta*)	7
red willow (*Salix laevigata*)*	15
TOTAL	87

*Indicates a native species

Many of these trees showed signs of decay, dieback, and exhibited low aesthetic value and poor symmetry (Attachment B). Their ratings ranged from D (Below Average/Poor) to B (Above Average). The five black locusts located north of the Via Princessa Metrolink station exhibited poor branching structure and poor symmetry. These trees are near utility lines and appear to be routinely trimmed away from the lines as a safety precaution. The seven Mexican fan palms and one Goodding's willow were in an unnamed drainage to the northwest of Weyerhauser Way. The palms were rated A (Outstanding) with minimal structural or health defects noted. The black willow was given a rating of B (Above Average) with minimal disease noted on the leaves and poor aesthetics overall. The remaining 34 trees (including 17 London planes, eight Australian willows, three African sumacs, three crapemyrtles, two Chinese pistaches, one carrotwood, and one African sumac) were ornamental trees planted in proximity to the Via Princessa Metrolink Station. These individuals showed no signs of decay and generally exhibited good structure and aesthetics overall, except for the Australian willows. These trees exhibited a lower aesthetic value and more structural defects. One Australian willow (Tree 82) was in an extreme state of decline and had cracks in the trunk, which is a sign of tree failure.

CONCLUSION

Ninety-two trees are located within the survey area. Five of these trees are oak trees, which are considered City-protected trees. The oaks have full canopies, abundant acorns, good aesthetics, and good branching structure. No other oaks, including Heritage Oak Trees, were observed during the survey. The 34 ornamental trees in the Via Princessa Metrolink area were in generally good health and lacked signs of disease or decay. The five black locust trees found north of the Via Princessa Metrolink station are in decline, appear to be routinely trimmed to accommodate the nearby utility lines, and have poor symmetry and low aesthetics. The eight trees, including one native Gooding's willow, located in an unnamed drainage the to the northwest of Weyerhauser Way were generally in good health. The 40 trees surveyed within Honby Channel are native riparian trees and exhibit varying signs of damage and decay in addition to possessing poor aesthetics overall.

Should you have any questions or require additional information, please do not hesitate to contact me at (949) 234-1515 or DanielT@helixepi.com.

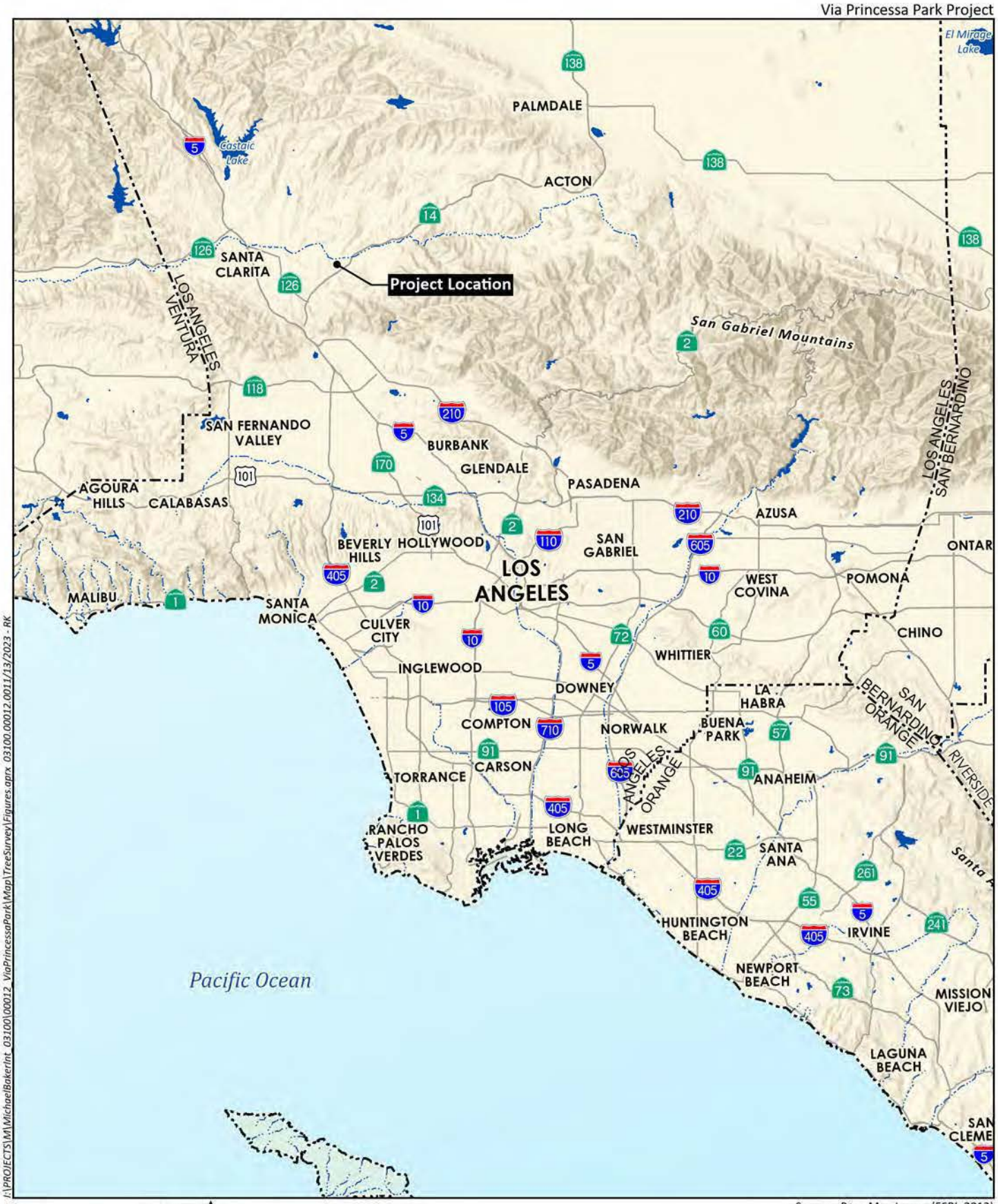
Sincerely,

Daniel Torres
ISA Certified Arborist (WE-12249A)

Enclosures:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Oak Tree Locations
Figure 5: General Tree Locations

Attachment A: Representative Photos
Attachment B: Tree Survey Data



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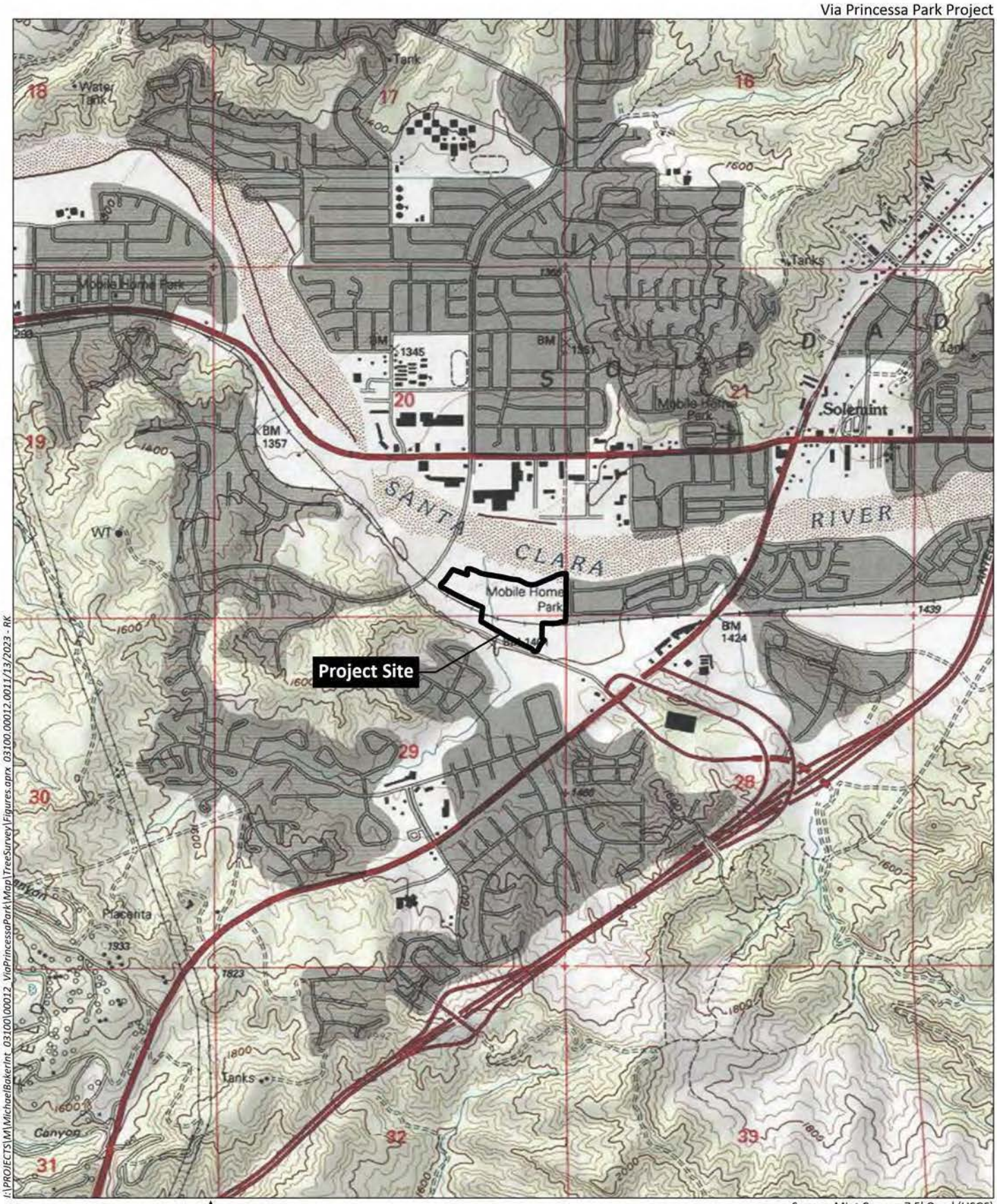
Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



0 2,000 Feet

Source: Mint Canyon 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

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0 400 Feet

Source: Aerial (Nearmap, 2022)

HELIX Environmental Planning

Aerial Photograph

Figure 3

Via Princessa Park

Whites Canyon Road

Southern Pacific Railroad

Via Princessa

Weyerhaeuser Way

Project Boundary

Protected Zone

Oak Tree Locations

Quercus agrifolia

Quercus wislizeni

0 150 Feet

Source: Aerial (SanGIS, 2014); Zoning (SanGIS 10/2016)

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HELIX Environmental Planning

Oak Tree Locations

Figure 4

Via Princessa Park

Whites Canyon Rd

Via Princessa

Project Site

Additional Survey Area

Tree Species

- African Sumac (*Searsia lancea*)
- Australian Willow (*Geijera parviflora*)
- Black Locust (*Robinia pseudoacacia*)
- Carrotwood (*Cupaniopsis anacardiodes*)
- Chinese Pistache (*Pistachia chinensis*)
- Coast Live Oak (*Quercus agrifolia*)
- Crape Myrtle (*Lagerstroemia indica*)
- Fremont Cottonwood (*Populus fremontii*)
- Goodding's Willow (*Salix gooddingii*)
- Interior Live Oak (*Quercus wislizeni*)
- London Plane Tree (*Platanus x hispanica*)
- Mexican Fan Palm (*Washingtonia robusta*)
- Red Willow (*Salix laevigata*)

0 150 Feet

N

Source: Aerial (NearMap, 2022)

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HELIX Environmental Planning

General Tree Locations

Figure 5

Attachment A

Representative Photos

Photo 1. Tree 14 (Fremont cottonwood, rated C) within Honby Creek, facing approximately north.

Photo 2. Tree 36 (red willow, rated C) within Honby Creek, facing approximately south.

Photo 3. A view of the trees in Honby Creek, facing approximately southwest.

Photo 4. A view of the black locust trees (Trees 41-45, all rated D) to the north of the Metrolink station, facing approximately northwest.

Photo 5. Tree 47 (coast live oak, rated A) along Weyerhauser Way, facing approximately west. Tree 46 (interior live oak, rated A) can be seen in the background.

Photo 6. A view of the Mexican fan palms (Trees 51-54, all rated A) in the unnamed drainage to the west of Weyerhauser Way, facing approximately northwest.

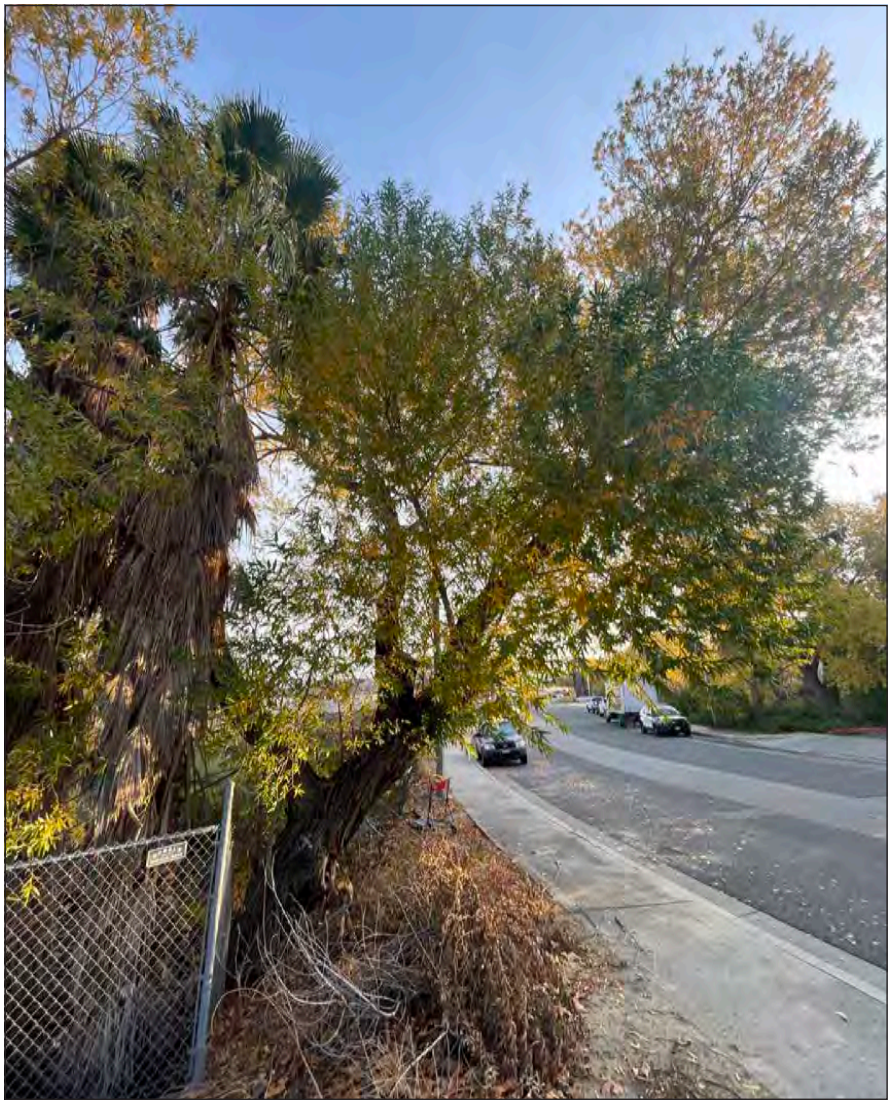


Photo 7. Tree 55 (Goodding's willow, rated B) in the unnamed drainage to the west of Weyerhauser Way.

Photo 8. Tree 61 (London plane tree, rated B) in the Metrolink parking lot, facing approximately north.

Photo 9. Tree 67 (crapemyrtle, rated A) in the Metrolink parking lot, facing approximately northeast. Tree 66 (crapemyrtle, rated A) can be seen in the background.

Photo 10. Tree 82 (Australian willow, rated D) in the Metrolink parking lot, facing approximately north.

Attachment B

Tree Survey Data

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
1	Fremont cottonwood *Populus fremontii*	10.9; 11.1	27	14	Trunk leaning, crotch at 3' is well-spaced, canopy not symmetric.	Some dieback in canopy, lots of buds on older twigs.	C	None.
2	Fremont cottonwood *Populus fremontii*	7.5	19	8	Canopy not symmetric, very poor structure, tree has fallen in the past.	Internal decay present, tree is losing bark.	D	The only growth on the tree is from what has sprouted from the fallen trunk.
3	Fremont cottonwood *Populus fremontii*	7.8; 12.5;15.7; 14.9	31	15	Trunk leaning north, widely diverging crotch at 6', canopy not symmetric.	Some internal decay present, canopy appears healthy.	D	One trunk is leaning almost vertical.
4	Fremont cottonwood *Populus fremontii*	2.1; 2.3	17	4	Crotch with included bark at 3'.	Growth appears healthy, some insect leaf herbivory present.	C	Main tree is dead.
5	Fremont cottonwood *Populus fremontii*	14	29	7	Poor physical appearance, lots of dead wood, canopy not symmetric.	Significant amount of canopy dieback, internal decay, bark falling off, minor insect leaf herbivory present.	D	Large old canker on trunk is showing signs of decay.
6	Fremont cottonwood *Populus fremontii*	3; 1.8	10	5	Poor, tree is mostly dead, poor aesthetics, not symmetric.	Tree in major decline, mostly dead, some insect leaf herbivory present.	D	None.
7	Fremont cottonwood *Populus fremontii*	9.2; 7.8; 9.9	28	12	Poor, canopy somewhat symmetric, most of the tree is dead, low aesthetic value.	Largest trunk mostly dead, dieback throughout canopy, decay present in all trunks.	D	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
8	Fremont cottonwood *Populus fremontii*	14; 13.6; 7.9	28	18	Poor, canopy somewhat symmetric, most of the tree is dead, and low aesthetic value.	Tree has significant amount of dieback, new growth has healthy buds, some herbivory, lots of decay in older trunks, some insect borer holes present.	C	The largest trunks are dead and were not measured.
9	Fremont cottonwood *Populus fremontii*	6.6	12	5	Poor, canopy somewhat symmetric; lots of dead wood lowers aesthetic value.	Significant amount of canopy dieback, canopy is mostly epicormic sprouting, insect herbivory present, bark is peeling.	D	None.
10	Fremont cottonwood *Populus fremontii*	9.2	17	6	Poor, top of trunk has fallen off, not symmetric	Significant amount of canopy dieback, bark is peeling, most growth is epicormic sprouting.	D	None.
11	Fremont cottonwood *Populus fremontii*	9.8	17	6	Poor, tree is leaning at a 45° angle, no symmetry, tree mostly dead- lowers aesthetic value.	Tree almost dead, very few remaining live buds.	D	Tree about 95% dead.
12	Fremont cottonwood *Populus fremontii*	13.3	20	4	Very poor, tree leaning 45° degrees, no symmetry.	Very poor, only growth is epicormic sprouting, tree in decline	D	Tree about 80% dead.
13	Fremont cottonwood *Populus fremontii*	10.2; 13.9	16	9	Very poor, tree has decayed in base, all trunks are leaning, poor symmetry.	In decline, tree growth is all epicormic sprouting.	D	None.
14	Fremont cottonwood *Populus fremontii*	10.5; 12.5	32	17	Poor, tree is leaning almost vertical, but canopy has grown symmetrically, poor structure with codominant leaders.	Some minor canopy dieback present, minor herbivory, some internal decay present at crotches.	C	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
15	Fremont cottonwood *Populus fremontii*	3.9; 4.1	16	6	Good symmetry, structure is fair, crotch with included bark at 1'.	Tree seems to be weak, buds are small, some canopy dieback present.	C	None.
16	Fremont cottonwood *Populus fremontii*	11; 12.6	30	16	Crotch with included bark at 1', trunk leaning west, not symmetric.	Some decay present in old wound at base, tree appears vigorous with lots of buds.	B	None.
17	Fremont cottonwood *Populus fremontii*	10.7; 7.7	26	13	Fair to poor, south side of tree shaded by adjacent tree, canopy not symmetric.	Good, vigorous growth, lots of buds, some insect leaf damage but does not seem to be affecting health.	B	Some damage to trunk present, possibly from a machete.
18	Fremont cottonwood *Populus fremontii*	9.2; 12.1; 15; 13.5	28	15	Crotch at 1' with 3 trunks with included bark, shaded by adjacent tree, not symmetric, leaning south.	Tree has lots of dense vigorous growth, some minor dieback in northern portion of canopy, minor insect herbivory present.	B	Some damage to trunk present, possibly from a machete. Old Corvid nest present.
19	Fremont cottonwood *Populus fremontii*	5.5; 5.4; 5.3	22	10	Structure is fair, somewhat symmetric.	Very vigorous growth, minor insect herbivory to leaves, some decay in old wound.	B	None.
20	Fremont cottonwood *Populus fremontii*	6.8; 4.2	25	9	Poor, tree strongly leaning west, codominant leaders, canopy not symmetric.	Vigorous growth, leaves have *Melamspora* leaf rust on leaves.	B	None.
21	Fremont cottonwood *Populus fremontii*	11.2	24	12	Poor, trunk cleared, not symmetric, canopy mostly in north, poor branching structure, tree trying to fill in north.	tree appears healthy and vigorous overall, minor amount of *Melamspora* leaf rust on leaves.	B	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
22	red willow *Salix laevigata*	18.2	35	18	Fair to poor, trunk leaning north, trunk is curved, canopy not symmetric.	Canopy looks full and vigorous but some dieback in lower canopy present.	C	Shaded by adjacent tree to the south.
23	red willow *Salix laevigata*	23.3; 22.7	32	15	Poor, tree leaning strongly west, crotch with included bark at 10', one trunk mostly dead, poor aesthetics.	Half of the tree is decayed and declining, other half decaying but lots of strong leaf growth.	D	None.
24	Fremont cottonwood *Populus fremontii*	25.7	33	10	Poor to fair, crotch with three branches at 6.5', not symmetric, crotch with included bark at 12'.	Some canopy dieback present, evidence of decay in some branches.	C	None.
25	Fremont cottonwood *Populus fremontii*	10.6	20	7	Poor aesthetics, canopy not symmetric, codominant leaders at 6'.	Canopy mostly dead, being shaded by adjacent cottonwood, lots of dieback.	D	None.
26	red willow *Salix laevigata*	29.5	36	18	Poor, codominant leaders and multiple branches all prone to failure, canopy not symmetric.	Tree appears healthy and vigorous overall, some minor dieback present.	C	Several branches present at 4.5', diameter measured around 2'.
27	Fremont cottonwood *Populus fremontii*	23	40	27	Codominant crotch at 12', not symmetric, trunk leaning slightly west.	Canopy has fair amount of dieback.	C	None.
28	red willow *Salix laevigata*	9.3; 6.1	19	5	Poor, tree mostly dead and decayed, no symmetry.	Tree consists of only epicormic sprouts from sides of trunks with fungus growing in one trunk.	D	Tree in severe decline.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
29	red willow *Salix laevigata*	9.7; 13.5	20	7	Poor, tree mostly dead and decayed, trunks curved.	Poor, tree almost dead, mostly epicormic sprouts from trunk, in decline/decaying.	D	None.
30	red willow *Salix laevigata*	22.7	27	10	Poor, main trunk broken at 25', not symmetric, trunk bent at 8'.	Tree in decline/decaying, living growth appears healthy, but dieback evident.	D	None.
31	red willow *Salix laevigata*	29.6; 35.3	26	16	Poor, main trunk is broken at 25', not symmetric.	Lots of decay throughout, lots of die back.	D	None.
32	red willow *Salix laevigata*	7.7	22	6	Crotch with included bark at 12', somewhat symmetrical, fair physical appearance.	Tree appears fairly, healthy, minimal dieback.	B	None.
33	red willow *Salix laevigata*	9.1	22	8	Tree leaning about 75°, not symmetric, poor appearance, trunk broken at 18'.	Some dieback in lower canopy, healthy growth otherwise.	C	None.
34	red willow *Salix laevigata*	11.9; 5	25	7	Trunk leaning south, not symmetric, poor appearance, branching structure is fair.	Some decay in upper trunk, broken at 23', growth healthy otherwise.	C	None.
35	red willow *Salix laevigata*	11.3	17	2	Poor, mostly dead, not symmetrical.	Almost dead, only a few epicormic, sprouts from trunk, fungus on trunk	D	None.
36	red willow *Salix laevigata*	11.8	15	5	Trunk trimmed for railroad, not symmetric, trunk leaning east.	Some internal decay, insect borer holes on trunk.	C	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
37	red willow *Salix laevigata*	18.8	35	11	Trunk leaning south, good branching structure.	Fungus growing from trunk, internal decay, lots of dieback in upper canopy.	D	Tree is in decline.
38	red willow *Salix laevigata*	4.8	15	3	Trunk leaning south, good branching structure.	Internal decay present throughout trunk, dieback in upper canopy.	D	None.
39	Fremont cottonwood *Populus fremontii*	14; 10.5	25	12	Not symmetric, one trunk leaning north, one trunk leaning south.	One trunk dying/decaying, other trunk has some vigorous growth but also some dieback.	C	Trees are connected below ground.
40	red willow *Salix laevigata*	18.3; 12.5	25	14	Most of the canopy in the north/northwest, not symmetric, ends of one trunk was trimmed, the other trunk is decaying and broken.	Tree appears fairly healthy overall, some dieback present.	C	None.
41	black locust *Robinia pseudoacacia*	5.2; 5.7; 7.5	23	9	Poor, branching structure is fair, low aesthetics, not symmetrical.	Tree in decline, twigs are dry, lots of dieback. Significant amount of epicormic sprouting present.	D	None.
42	black locust *Robinia pseudoacacia*	22; 15; 10.7	38	16	Codominant leaders form a crotch at 6',	Tree is in decline.	D	Trunks are connected at ground level, light pole growing into one trunk.
43	black locust *Robinia pseudoacacia*	15.1	23	10	Poor, tree was trimmed for utility wire, not symmetric.	Tree is in decline.	D	Crotch at 4.5', measured below at 2', crotch at 6' with 3 branches.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
44	black locust *Robinia pseudoacacia*	14	22	9	Trimmed for utility wire, crotch at 6.5'.	Tree is in decline.	D	Multiple branches from one point, diameter measured slightly below.
45	black locust *Robinia pseudoacacia*	4	20	4	Not symmetric, growing under Tree 41. Trunk is leaning, branching structure is fair.	Tree is in decline.	D	None.
51	Mexican fan palm *Washingtonia robusta*	18	50	6	Trunk leaning slightly west.	Tree is healthy and robust, no signs of disease.	A	Tree in a drainage, DBH was estimated.
52	Mexican fan palm *Washingtonia robusta*	15	42	6	Trunk is straight.	Tree is healthy and robust, no signs of disease.	A	Tree in a drainage, DBH was estimated.
53	Mexican fan palm *Washingtonia robusta*	12	40	6	Good, straight trunk.	Tree is healthy and robust, no signs of disease.	A	Tree in a drainage, DBH was estimated.
54	Mexican fan palm *Washingtonia robusta*	15	46	6	Good, straight trunk.	Tree is healthy and robust, no signs of disease.	A	Growing directly next to adjacent tree. Tree in a drainage, DBH was estimated.
55	Goodding's willow *Salix gooddingii*	33	35	20	Crotches at 5' and 10' with included bark. Canopy not symmetric, poor aesthetics.	Tree appears healthy overall, some minor evidence of disease on leaves.	B	None.
56	Mexican fan palm *Washingtonia robusta*	24	35	7	Straight trunk , good aesthetics.	Tree is healthy and robust.	A	Tree in a drainage, DBH was estimated.
57	Mexican fan palm *Washingtonia robusta*	18	40	6	Trunk is slightly leaning south.	Tree is healthy and robust.	A	Tree in a drainage, DBH was estimated.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
58	Mexican fan palm *Washingtonia robusta*	12	38	6	Trunk is slightly leaning north.	Tree is healthy and robust.	A	Tree in a drainage, DBH was estimated.
59	London plane tree *Platanus* x *hispanica*	10.1	31.0	9	Trunk is slightly leaning north. Branching structure is fair, canopy is symmetric.	Tree appears healthy but some epicormic sprouting is evident.	B	None.
60	London plane tree *Platanus* x *hispanica*	7.0	17.0	7	Tree has been overpruned, poor aesthetics.	Canopy dieback evident	C	Crotch at 4.5', diameter measured at 3.5'.
61	London plane tree *Platanus* x *hispanica*	6.5	18.0	7	Multiple branches from one node above DBH, poor structure.	Some epicormic sprouting is evident.	B	None.
62	London plane tree *Platanus* x *acerifolia*	7.3	17.0	7	Several branches are growing between 5-6', overpruned.	Tree appears healthy overall.	B	None.
63	Australian willow *Geijera parviflora*	4.1	16.0	5	Trunk is curved and leaning northwest, canopy is symmetric but poor aesthetics.	Tree appears weak, some dieback in canopy.	C	None.
64	Australian willow *Geijera parviflora*	5.3	17.0	6	Crotches with included bark at 3.5', 6', and 6.5' Canopy is symmetric, good aesthetics.	Some minor dieback in canopy, tree is fairly healthy.	B	None.
65	Australian willow *Geijera parviflora*	1.9	12.0	4	Fair structure, poor aesthetics.	Canopy is very sparse and tree appears to be in decline.	D	None.
66	crape myrtle *Lagerstroemia indica*	2.1, 2.1, 2	17.0	6	Multiple trunks and branching typical of species. Symmetric, good aesthetics.	Healthy and vigorous tree.	A	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
67	crape myrtle *Lagerstroemia indica*	2.8, 2.1, 2.2	17.0	7	Multiple trunks and branching typical of species. Symmetric, good aesthetics.	Healthy and vigorous tree.	A	None.
68	Chinese pistache *Pistachia chinensis*	7.7	21.0	8.5	Multiple branches from one node at 7'. Good symmetry, fair structure overall.	Lots of healthy buds present.	B	None
69	London plane tree *Platanus* x *hispanica*	4.7	18.0	9.5	Good symmetry, large gap in canopy lowers aesthetic value, branching structure is fair.	Tree appears healthy overall, buds are large and healthy.	B	None.
70	London plane tree *Platanus* x *hispanica*	7.5	22.0	10	Good symmetry, multiple branches from one node at 8'. Trunk is slightly leaning east. Aesthetics are good overall.	Buds are large and healthy.	B	None.
71	London plane tree *Platanus* x *hispanica*	6.4	23.0	10	Good structure overall and good symmetry. Gap in canopy lowers aesthetic value.	Tree is healthy overall with vigorous growth.	A	None.
72	London plane tree *Platanus* x *hispanica*	6.6	20.0	9	Fair structure overall. Trunk has a slight lean. Symmetry is good. High aesthetic value.	Vigorous and healthy canopy.	A	None.
73	London plane tree *Platanus* x *hispanica*	6.8	22.0	9	Minor included bark at 9'. Good symmetry and structure overall. Trunk is slightly leaning east.	Some minor canopy dieback is present, but tree is healthy overall.	B	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
74	Australian willow *Geijera parviflora*	5.8	18.0	7	Tree is slightly west. Good structure and symmetry overall.	Canopy appears healthy of full for the species.	B	None.
75	Australian willow *Geijera parviflora*	3.0, 3.1	15.0	6	Crotch with included bark at 3'. Trunk is leaning west- lowers aesthetic value. Canopy not symmetric.	Some canopy dieback is present.	C	None.
76	Australian willow *Geijera parviflora*	2.7	10.0	5	Trunk is curved and leaning west. Multiple branches from one node slightly below DBH, canopy not symmetric, reduced aesthetic value.	Canopy is full, minor amount of dieback present.	B	None.
77	Chinese pistache *Pistachia chinensis*	6.7	18.0	7	All branches are growing from one node at 7', poor branching structure. Gaps in canopy due to overpruning lowers aesthetic value.	Growth appears healthy overall, lots of berries present.	B	Some branches are crossing.
78	London plane tree *Platanus* x *hispanica*	5.8	17.0	7.5	Branching structure is fair. Some branches are crossing and the trunk is slightly leaning west poor symmetry.	Health is fair, significant amount of epicormic sprouting is present.	C	None.
79	London plane tree *Platanus* x *hispanica*	4.3; 4.6.	18.0	8	Trunk is leaning slightly west, symmetry is fair, poor aesthetic value due of overpruning.	Some dieback in canopy is present, other growth appears healthy.	C	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
80	London plane tree *Platanus* x *hispanica*	7.4	23.0	10	Structure and aesthetics are good, trunk is slightly leaning east.	Minor dieback is present in canopy, healthy overall.	B	None.
81	London plane tree *Platanus* x *hispanica*	11.2	39.0	13	Good branching structure, aesthetics, and symmetry.	Growth is vigorous and full. Tree appears to be healthy.	A	None.
82	Australian willow *Geijera parviflora*	3.2, 3.6	14.0	7	Crotch with included bark at 4', trunk is leaning west, low aesthetic value, cracks in trunk, prone to tree failure.	Poor health, tree appears to be in decline.	D	Tree removal should be considered.
83	London plane tree *Platanus* x *hispanica*	7.7	15.0	8	Trunk is slightly leaning north.	Health is fair, some minor dieback in canopy is present.	C	None.
84	London plane tree *Platanus* x *hispanica*	5.8	2.0	7.5	Trunk is slightly leaning east. Multiple branches from one node at 7'.	Health is fair, some minor dieback in canopy is present.	C	None.
85	Australian willow *Geijera parviflora*	2.3, 3.2	12.0	5	One codominant branch was trimmed leading to poor canopy symmetry. Trunk is leaning south and all growth is concentrated in the south- very poor aesthetics.	Remaining growth appears healthy with some minor dieback evident.	C	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
86	London plane tree *Platanus* x *hispanica*	14.1	35.0	15	Crossing branches growing into each other at 16', otherwise good structure and symmetry. Good aesthetics overall.	Good health overall. Tree appears vigorous and full.	A	Multiple low branches growing at 4.5', measured slightly below.
87	London plane tree *Platanus* x *hispanica*	12.9	37.0	15	Crotch with some included bark at 11', otherwise good branching overall, good aesthetics.	Tree is vigorous and full overall.	A	None.
88	African sumac *Searsia lancea*	8.3	16.0	9	Included bark at 5' and 7'. Good branching otherwise and good aesthetics overall. Trunk is leaning east and most of canopy in the west, not symmetric.	Canopy is dense and full.	B	None.
89	African sumac *Searsia lancea*	9.6	17.0	7.5	Included bark at 5', some branches crossing. Trunk is leaning west and most of canopy is in the west, not symmetric.	Growth is dense and healthy.	B	None.
90	African sumac *Searsia lancea*	8.9	18.0	6.5	Trunk leaning slightly southwest, crossing branches at 10' are rubbing against each other. Most of canopy is in west, not symmetric.	Growth is dense and healthy.	B	None.

Tree Tag No.	Species	DBH (in)	Height (ft)	Average Canopy Radius (ft)	Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
91	carrotwood *Cupaniopsis anacardioides*	10.4	26.0	10	Trunk is curved slightly to the southeast. All main branches are growing from one node at 7.5' with included bark. Branches growing into each other at 10'. Canopy is mostly symmetric.	Growth appears healthy and vigorous.	B	Carvings all over trunk lower aesthetic value.
92	crape myrtle *Lagerstroemia indica*	2.2; 2.2; 2.0; 2.0	12	6	Tree is symmetry with high aesthetic value.	Tree appears healthy.	B	None.

OAK TREES

Tree Tag No.	Species	Width* (in)	Height (ft)	Canopy Extent (feet)								Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
				N	NE	E	SE	S	SW	W	NW				
46	interior live oak *Quercus wislizeni*	49.2	28	18	13.5	11.5	22.5	16	16	13.5	16	Some included bark at 9', otherwise good structure, trunk is leaning slightly southwest, canopy not symmetric.	Canopy is vigorous and full; tree has wooly oak galls but does not appear to be affecting health.	B	Tree is in the parking lot.
47	coast live oak *Quercus agrifolia*	27.6	18	11.5	9.0	6.0	6.0	8.5	10.0	12.5	14.5	Codominant leader with good branching structure, canopy not symmetric.	Full canopy, healthy and vigorous tree, produced lots of acorns, no signs of disease or pests.	A	Tree is next to irrigation boxes.
48	coast live oak *Quercus agrifolia*	40.8	22	10	11	11	10.5	10.5	14.5	12	7.5	Crotch with included bark at 7', otherwise the structure is good.	Full canopy, healthy and vigorous tree, produced lots of acorns, no signs of disease or pests.	A	None.
49	coast live oak *Quercus agrifolia*	18.0	18	7.0	8.0	8.5	8.0	9.0	9.0	7.5	7.5	Canopy is mostly symmetric. Good branching structure and aesthetics.	Full canopy, healthy and vigorous tree, produced lots of acorns, no signs of disease or pests.	A	None.

Tree Tag No.	Species	Width* (in)	Height (ft)	Canopy Extent (feet)								Physical Evaluation	Horticultural Evaluation	Oak Tree Rating	Comments
				N	NE	E	SE	S	SW	W	NW				
50	coast live oak *Quercus agrifolia*	31.2	20	8.5	8.0	10	11.5	11.0	11.0	7.5	7.0	Trunk is slightly leaning south to southeast, multiple branches from one node a 7.5'.	Full canopy, healthy and vigorous tree, produced lots of acorns, no signs of disease or pests.	A	None.

* Circumference.

Appendix I

Rare Plant Species Potential to Occur

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Berberis nevinii	Nevin's barberry	FE/SE CRPR 1B.1	Evergreen shrub. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian scrub on sandy or gravelly soils. Elevation range 70-825 m. Flowering period Feb-Jun.	**Presumed Absent.** Although the project site supports some patchy suitable habitat, this species was not detected during any of the field surveys. This is a conspicuous evergreen shrub species and is identifiable year-round.
Calochortus clavatus var. *gracilis*	slender mariposa-lily	CRPR 1B.2	Perennial herb (bulb). Occurs in shaded foothill canyons, generally in chaparral, coastal scrub, and grasslands. Elevation range below 1,000 m. Flowering period Mar-Nov.	**None.** The project site does not support suitable shaded foothill canyons.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	CRPR 1B.2	Perennial herb. Occurs in mesic and vernally moist areas within chaparral, lower montane coniferous forest, and meadows. Also occurs within seeps. Elevation range 710-2,390 m. Flowering period Apr-Jul.	**None.** The project site does not support vernally moist areas or seeps. The project site is below the elevation range for this species.
Centromadia parryi ssp. *australis*	southern tarplant	CRPR 1B.1	Small annual herb. Occurs on the margins of swamps and marshes and in vernally mesic places within grasslands. Elevation range 0-200 m. Flowering period May-Nov.	**None.** The project site does not support marshes, swamps, or vernally mesic places within grasslands. The project site is above the elevation range for this species.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	FE CRPR 1B.1	Annual herb. Generally occurs within disturbed sites along marsh or vernal pool margins within coastal sage scrub and grassland communities. Can occur in alkaline soils among saltgrass. Elevation range 150-1,220 m. Flowering Period Apr-Jun.	**None.** The project site does not support suitable marsh or vernal pool habitats.
Chorizanthe parryi var. *parryi*	Parry’s spineflower	1B.1	Annual herb. Occurs in coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Occurs in sandy soils. Elevation range 277-1,220 m. Flowering Period Apr-Jun.	**None.** The project site is outside of this species’ documented geographic range. There are no documented occurrences along the Santa Clara River or within the City of Santa Clarita.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Deinandra minthornii	Santa Susana tarplant	Rare CRPR 1B.2	Shrub. Occurs in coastal sage scrub and chaparral, often on sandstone. Elevation range 200-760 m. Flowering period Jun-Nov.	**None.** The project site is outside of this species' documented geographic range, which is within the Santa Susana Mountains and Santa Monica Mountains.
Dodecahema leptoceras	slender-horned spineflower	FE/SE CRPR 1B.1	Annual herb. Found in sandy and gravelly soils or alluvial fans in coastal sage scrub, chaparral, and woodlands. Elevation range 200-760 m. Flowering Period Apr-Jun.	**Presumed Absent.** The project site supports suitable sandy and gravelly soils, but the species was not observed during rare plant surveys. No CNDDB occurrences were recorded near the project site.
Helianthus inexpectatus	Newhall sunflower	CRPR 1B.1	Perennial rhizomatous herb. Occurs in marshes and swamps; spring-fed marshes within willow woodlands. Occurs in clay soils; open grassy areas within shrubland. Elevation range 305 m. Flowering Period Aug-Oct.	**None.** The project site does not support marshes or swamps. The project site is above the elevation range for this species.
Horkelia cuneata var. *puberula*	mesa horkelia	CRPR 1B.1	Perennial herb. Occurs in sandy or gravelly areas within chaparral, coastal sage scrub, and coastal mesas. Elevation range 70-810 m. Flowering period Mar-Jul.	**None.** The project site is outside of this species' documented geographic range. There are no documented occurrences along the Santa Clara River or within the City of Santa Clarita.
Lepechinia rossii	Ross' pitcher sage	CRPR 1B.2	Perennial shrub. Occurs in soil derived from fine-grained, reddish sedimentary rock within chaparral. Elevation range 305-790 m. Flowering period May-Sep.	**None.** The project site does not support suitable soils and is outside of this species' documented geographic range. This species has only been documented in the Topatopa Mountains and the Sierra Pelona Mountains.
Lupinus paynei	Payne's bush lupine	CRPR 1B.1	Perennial shrub. Occurs in coastal scrub, riparian scrub, valley and foothill grassland. Occurs in dry soils and shrubland. Elevation range 220-420 m. Flowering period Mar-Apr.	**None.** The project site is outside of this species' documented geographic range, which is primarily in the western portion of the Santa Susana Mountains.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Malacothamnus davidsonii	Davidson's bush-mallow	CRPR 1B.2	Shrub. Occurs in coastal scrub, riparian woodland, chaparral, cismontane woodland. Elevation range 500-700 m. Flowering period Jun-Jan.	**None.** The project site is below the elevation range for this species.
Navarretia fossalis	spreading navarretia	FT CRPR 1B.1	Annual herb. Occurs in vernal pools, playas, marshes, swamps, and chenopod scrub. Population size is strongly correlated with rainfall. Depth of pool appears to be a significant factor as this species is rarely found in shallow pools. Elevation range 30-1300 m. Flowering period Apr-Jun.	**None.** The project site does not support vernal pools, playas, marshes, swamps, or chenopod scrub.
Navarretia setiloba	Piute Mountains navarretia	CRPR 1B.1	Annual herb. Occurs on depressions in clay or gravelly loam within valley grassland, foothill woodland, cismontane woodland, and pinyon-juniper woodland. Elevation range 500-2100 m. Flowering period Apr-Jul.	**None.** The project site does not support depressions in clay or gravelly loam. The project site is below the elevation range for this species.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	CRPR 1B.2	Perennial stem. Occurs in chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Elevation range 570-1,800 m. Flowering period Apr-Jun (Aug).	**None.** The project site does not support Joshua tree woodland, Mojavean desert scrub, or pinyon and juniper woodland. The project site is below the elevation range for this species.
Orcuttia californica	California Orcutt grass	SE/FE CRPR 1B.1	Annual herb. Occurs in vernal pools. Elevation range 15-660 m. Flowering period Apr-Aug.	**None.** The project site does not support vernal pools.
Pseudognaphalium leucocephalum	white rabbit-tobacco	CRPR 2B.2	Perennial herb. Occurs on sandy or gravelly soils of benches, dry stream bottoms, and canyon bottoms within coastal scrub, chaparral, cismontane woodland, and riparian woodland. Elevation range below 2,100 m. Flowering period Aug-Nov.	**Presumed Absent.** The project site supports suitable gravelly soils, but the species was not observed during rare plant surveys. The nearest CNDDB occurrence was recorded in 2015, approximately 13 miles to the northwest of the project site.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Senecio aphanactis	chaparral ragwort	CRPR 2B.2	Annual herb. Occurs on drying alkaline flats within chaparral, cismontane woodland, and coastal scrub. Elevation range 15-800 m. Flowering period Jan-Apr.	**None.** The project site does support suitable alkaline flats.
Streptanthus campestris	southern jewelflower	CRPR 1B.3	Perennial herb. Occurs within open rocky areas within chaparral, lower montane coniferous forest, pinyon and juniper woodland. Elevation range 900-2,300 m. Flowering period May-Jul.	**None.** The project site does support suitable open rocky areas. The project site is below the elevation range for this species.
Symphyotrichum greatae	Greata's aster	CRPR 1B.3	Perennial rhizomatous herb. Occurs in moist places within canyons in broad-leafed upland and lower montane coniferous forests, chaparral, riparian and cismontane woodland. Elevation range 300-2,100 m. Flowering period Jun-Oct.	**None.** The project site does not support suitable canyons in broad-leafed upland and lower montane coniferous forests, chaparral, riparian or cismontane woodland.

Source: HELIX (2023)

[1] Sensitive species reported within the Mint Canyon, Warm Springs Mountain, Green Valley, Sleepy Valley, Agua Dulce, Sunland, San Fernando, Oat Mountain, and Newhall quadrangles on the CNPS database.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened.
CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information on distribution, endangerment, ecology, and/or taxonomic validity is needed. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3] California Native Plant Society. 2023a. Inventory of rare and endangered plants of California. California Native Plant Society. Available from: http://www.rareplants.cnps.org/. Accessed October 29, 2023.

[4] Potential to Occur is assessed as follows: **None**: Habitat suitable for species survival does not occur on the project site, the project site is not within geographic range of the species, and/or the project site is not within the elevation range of the species; **Low**: Suitable habitat is present on the project site but of low quality and/or small extent. The species has not been recorded recently on or near the project site. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the project site and the species was recorded recently near the project site; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent is present on the project site and the species has been recorded recently on or near the project site, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during focused surveys for the current project and is assumed to occupy the project site; **Presumed Absent**: Suitable habitat is present on the project site but focused surveys for the species were negative.

Appendix J

Sensitive Animal Species Potential to Occur

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Invertebrates				
Bombus crotchii	Crotch's bumble bee	SCE	Coastal California east to the Sierra-Cascade crest and south into Mexico and is associated with grassland and scrub habitats near the coast. Species' food genera include *Antirrhinum* spp., *Clarkia* spp., *Dendromecon* spp., *Eriogonum* spp., *Eschscholzia* spp., *Lupinus* spp., *Medicago* spp., *Phacelia* spp., and *Salvia* spp. Nests are underground and commonly consist of abandoned rodent nests.	**Absent.** The project site supports suitable nectar sources, including *Eriogonum fasciculatum*, *Eschscholzia californica*, and *Salvia* spp. The nearest CNDDB occurrence was recorded in 2019, approximately one mile to the southeast of the project site. No foraging or nesting individuals were detected during focused surveys conducted in 2023.
Branchinecta lynchi	vernal pool fairy shrimp	FT	Most commonly found in swale, earth slump, or basal-flow depression pools in unplowed grasslands. Requires cool-water pools. This species takes 18 days to mature after hatching and 40 days to reproduce.	**None.** Depressional areas are not present within the project site.
Danaus plexippus plexippus pop. 1	monarch butterfly-California overwintering population	FCE	Population west of the Rocky Mountains migrates to, and overwinters, along the coast of central and southern California. Inhabits a wide variety of open habitats including fields, meadows, marshes, and roadsides and roosting on wind-protected tree groves (such as eucalyptus [*Eucalyptus* spp.], Monterey pine [*Pinus radiata*], cypress [*Hesperocyparis* sp.]), with nectar and water sources nearby. Breeds in areas that have a suitable abundance of their host plant, milkweed (*Asclepias* sp.).	**None.** The project site does not support suitable overwintering habitat (wind-protected tree groves near the coast). The project site does not support suitable host plant species (*Asclepias* sp.) for breeding habitat. The project site supports small patches of suitable foraging habitat, and therefore, may be present for brief periods while foraging.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Euphydryas editha quino	Quino checkerspot butterfly	FE	Primary larval host plants are dwarf plantain (*Plantago erecta*) at lower elevations, woolly plantain (*P. patagonica*) and white snapdragon (*Antirrhinum coulterianum*) at higher elevations. Owl's clover (*Castilleja exserta*) is considered a secondary host plant if primary host plants have senesced. Potential habitat includes vegetation communities with areas of low-growing and sparse vegetation. These habitats include open stands of sage scrub and chaparral, adjacent open meadows, old foot trails and dirt roads.	**None.** This species has been extirpated from Los Angeles County. The project site does not support suitable host species.
Fish				
Catostomus santaanae	Santa Ana sucker	FT	Found within south coastal streams of the Los Angeles Basin. Prefers streams with sand-rubble-boulder bottoms with cool clear water.	**None.** The project site does not support perennial water.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE, SE	Occurs in weedy ponds, backwaters, and among emergent vegetation in small, south coast-flowing streams.	**None.** The project site does not support perennial water. The portion of the Santa Clara River that occurs along the northern project boundary is a dry gap that extends approximately 16 kilometers long, extending between Saugus and Lang. This dry gap of the Santa Clara River no longer supports this species (Richmond et. al 2014). The project site does not support suitable habitat (i.e., perennial water, weedy ponds).

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Gila orcuttii	arroyo chub	SSC	Prefers slow moving streams or backwaters with sand or mud bottoms. Streams are typically deeper than 40 centimeters (16 inches). Primary food sources are aquatic vegetation and invertebrates.	**None.** The project site does not support perennial water.
Rhinichthys osculus ssp. 8	Santa Ana speckled dace	SSC	Occurs in perennial streams located in the headwaters of Santa Ana and San Gabriel rivers. Prefers summer water temperatures between 17 and 20°C within shallow reaches with riffles.	**None.** The project site does not support perennial water.
Amphibians				
Anaxyrus californicus	arroyo toad	FE, SSC	Found on banks with open-canopy riparian forest characterized by willows, cottonwoods, or sycamores; breeds in areas with shallow, slowly moving streams, but burrows in adjacent uplands during dry months. Breeding pools must be less than six inches deep, have minimal water velocities, and persist a minimum of two months and into at least mid-summer.	**None.** Honby Channel supports a small patch of Fremont cottonwood forest and woodland, and mule fat scrub (0.88 acre). There is a small area that ponds directly downstream of the existing box culvert for short periods of time. However, the water velocity at this location would not be suitable for arroyo toad eggs given this area is in the middle of the streambed and directly downstream of a box culvert where water flows quickly. Water does not persist long enough to support fully developed individuals (Honby Channel was completely dry by April 10, 2023). The nearest CNDDB occurrence was recorded in 1994 approximately six miles west of the project site.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Rana draytonii	California red-legged frog	FT, SSC	Suitable habitat is characterized by dense, shrubby riparian vegetation with deep, slow-moving water. Readily displaced by introduced aquatic predators, including bullfrogs (*Lithobates catesbiana*) or crayfish (*Procambarus* spp.).	**None.** The project site does not support perennial water.
Rana muscosa	southern mountain yellow-legged frog	FE, SE	Occurs in Sierra Nevada from Fresno County to Kern County in southern California. Isolated populations exist in the San Gabriel, San Bernardino, and San Jacinto Mountains. In southern California, populations are restricted to streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats. Occurs in permanent pools of streams, marshes, and occasionally ponds.	**None.** The project site does not support perennial water.
Spea hammondii	western spadefoot	SSC	Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; require temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* spp.). Breeding pools must persist for at least 30 days with water depths between 18 and 24 inches.	**None.** This project site does not support suitable temporary pools for breeding.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Taricha torosa	Coast Range newt	SSC	Breeds in ponds, reservoirs, and slow-moving stream pools; often found in riparian forest, woodlands, chaparral, or grassland within one kilometer of breeding habitat.	**None.** This project site does not support breeding habitats, such as ponds, reservoirs, and slow-moving stream pools. No suitable breeding habitat is present within one kilometer of the project site.
Reptiles				
Anniella stebbinsi	Southern California legless lizard	SSC	Broad-leaved upland forest, chaparral, coastal dunes and coastal scrub. Occurs in sandy or loose soils under sparse vegetation. Generally, prefers soils with a high moisture content.	**Moderate.** The project site supports potentially suitable habitat within Honby Channel. The nearest CNDDB occurrence was recorded in 1981, approximately 27.3 miles west of the project site.
Arizona elegans occidentalis	California glossy snake	SSC	Occurs in arid scrub, rocky washes, grasslands, chaparral, barren desert, and pinyon-juniper, oak, or pine woodlands. Generally prefers open areas and loose soil within these habitats.	**Low.** The project site supports potentially suitable chaparral habitat. The nearest CNDDB occurrence was recorded in 1935, approximately 0.25 mile east of the project site.
Aspidoscelis tigris stejnegeri	coastal whiptail	SSC	Open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions.	**Moderate.** The project site supports potentially suitable open coastal scrub habitat. The nearest CNDDB occurrence was recorded in 2016, approximately 1.9 miles east of the project site.
Emys marmorata	western pond turtle	FCT	Almost entirely aquatic; occurs in freshwater marshes, creeks, ponds, rivers and streams, particularly where basking sites, deep water retreats, and egg laying areas are readily available.	**None.** This project site does not support perennial water sources for the species.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Phrynosoma blainvillii	coast horned lizard	SSC	Coastal sage scrub and open areas in chaparral, oak (*Quercus* sp.) woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* spp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**Moderate.** The project site supports potentially suitable coastal sage scrub habitat for this species. The nearest CNDDB occurrence was 2005, approximately 4.9 miles northwest of the project site.
Thamnophis hammondii	two-striped gartersnake	SSC	Occurs in or near perennial water bordered by dense riparian vegetation. Can also be associated with vernal pools or stock ponds.	**None.** The project site does not support perennial water.
Birds				
Agelaius tricolor	tricolored blackbird	ST	Occurs in marsh habitat near grasslands, pastures, and agricultural fields.	**None.** The project site does not support suitable marsh habitat.
Ammodramus savannarum	grasshopper sparrow	SSC	Occurs in grasslands, prairies, hayfields, and open pastures with little to no scrub cover and often with some bare ground.	**None.** The project site does not support grasslands, prairies, hayfields, or open pastures. The nearest eBird occurrence was recorded in 2014, approximately 2.5 mile to the southeast of the project site.
Athene cunicularia	burrowing owl	SSC	Occurs in grassland or open scrub habitats.	**Absent.** The project site supports potentially suitable open scrub and disturbed habitat. This species was recorded within the project site in 2007. Suitable burrows were observed during the habitat assessment, but no sign or individuals were detected during focused surveys conducted in 2023.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Buteo swainsoni	Swainson's hawk	ST	Breeds in grasslands and shrublands with scattered trees, riparian areas, and agricultural areas with groves or lines of trees. Requires adjacent grasslands or agricultural fields supporting rodent populations for foraging.	**Low (Foraging Only).** This species is not known to nest in southern California except for populations in the Antelope Valley and Mojave Desert (Battistone et al. 2019, Bechard et al. 2020). The project site may provide low-quality foraging habitat. This species recorded in eBird in 2007, approximately 1.5 miles southwest of the project site.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT, SE	Generally, occurs along larger river systems, where it nests in riparian forest dominated by willows (*Salix* sp.) and cottonwoods (*Populus* sp.). Generally, absent from heavily forested areas and large urban areas. Prefer patches of riparian habitat greater than 81 hectares in size and at least 100 meters in width.	**None.** Although the project site supports one small patch of Fremont cottonwood forest and woodland, heavy development of the area and size of habitat excludes this species from the project site. The nearest eBird occurrence was recorded in 2018, approximately 3.8 mile to the west of the project site.
Elanus leucurus	white-tailed kite	SFP	Occurs in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats mostly in cismontane California.	**Moderate.** The project site supports a few scattered trees that are potentially suitable for nesting and open areas for foraging. The nearest eBird occurrence was recorded in 2021, approximately 0.8 mile to the southeast of the project site.
Empidonax traillii extimus	southwestern willow flycatcher	FE, SE	Breeds within thickets of willows usually along streams, ponds, lakes, or canyons. Migrants may be found among other shrubs in wetter areas.	**None.** Although the project site supports small, isolated patches of riparian habitat, willows (*Salix* spp.) are not a large component of this habitat. The nearest eBird occurrence was recorded in 2009, approximately 11.2 miles southeast of the project site.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Lanius ludovicianus	loggerhead shrike	SSC	Nests in dense, often thorny shrubs or trees. Will nest within brush piles or tumbleweeds when trees or shrubs are not present. Feeds on a wide variety of animals, including arthropods, amphibians, reptiles, small mammals, and small songbirds within open habitats such as grasslands, agricultural fields, pastures, shrublands, and rural areas with adequate perching locations.	**Moderate.** Suitable brush habitat for nesting and open areas for foraging were observed within the project site. The nearest eBird occurrence was recorded in 2010, approximately 1.2 miles southwest of the project site.
Polioptila californica californica	coastal California gnatcatcher	FT, SSC	Occurs in coastal sage scrub and very open chaparral.	**None.** The project site supports a small (0.20 acre), isolated patch of open coastal sage scrub dominated by *Eriogonum fasciculatum.* This species is not expected to occur within this habitat since its highly disturbed and limited in size. The nearest eBird occurrence was recorded in 2013, approximately 3.1 miles southeast of the project site.
Vireo bellii pusillus	least Bell's vireo	FE, SE	Inhabits riparian woodland and is most frequent in areas that combine an understory of dense, young willows or mule fat with a canopy of tall willows.	**Absent.** The project site supports small, isolated patches of potentially suitable riparian woodland. The nearest eBird occurrence was recorded in 2018, approximately 3.8 miles west of the project site. This species was not detected during focused surveys conducted in 2023.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Mammals				
Antrozous pallidus	pallid bat	SSC	Occurs in a wide variety of habitats, including deserts, grasslands, shrublands, woodlands, and forests. Roosts commonly in bridges, buildings, and tree bark/cavities.	**Low.** The culvert crossing over Honby Channel within the central-southern portion of the project site and White Canyon Road bridge crossing over the Santa Clara River adjacent to the western project site boundary support potentially suitable roosting habitat. The project site supports suitable foraging habitat. The nearest CNDDB occurrence was recorded in 1938, approximately 9.1 miles northwest of the project site.
Corynorhinus townsendii	Townsend's big-eared bat	SSC	Occurs in a variety of habitats, but most common in mesic habitats. Requires mines, tunnels, caves, buildings, and other human-made structures for roosting. May use separate sites for night, day, hibernation, or maternity roosts. This species is very sensitive to human disturbance.	**None.** The project site does not support suitable foraging habitat. A high level of human disturbance likely excludes this species from the project site. The nearest CNDDB occurrence was recorded in 1942, approximately 5.7 miles northeast of the project site.
Euderma maculatum	spotted bat	SSC	Occurs mostly in foothills, mountains and desert regions of southern California. Inhabits arid deserts, grasslands and mixed conifer forests. Roosts high in cracks and crevices in caves and rocks cliffs.	**None.** The project site does not support suitable foraging or roosting habitat.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Eumops perotis californicus	western mastiff bat	SSC	Forages in a variety of open areas, including washes, floodplains, chaparral, coastal sage scrub, woodlands, ponderosa pine forests, grassland, and agricultural areas. Roosts under exfoliating rock slabs on cliff faces and occasionally in large boulder crevices and building cracks.	**Low (Foraging Only).** The project site does not support suitable roosting habitat but does support suitable foraging habitat. The nearest CNDDB occurrence was recorded in 1992, approximately 3.7 miles southwest of the project site.
Lasiurus xanthinus	western yellow bat	SSC	Found in desert regions in wooded areas and desert scrub, but expanding their range due to ornamental palm trees in landscaping. Roosts in foliage, particularly in thorny vegetation, palms, and other desert riparian habitats.	**Low.** The project site supports a few palm trees in the southeast portion of the project site within Drainage A.
Macrotus californicus	California leaf-nosed bat	SSC	Inhabit desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis. Roosts in caves and mines.	**None.** The project site does not support suitable foraging or roosting habitat.
Microtus californicus stephensi	South Coast marsh vole	SSC	Occurs in tidal marshes in Orange, Los Angeles, and Ventura counties	**None.** The project site does not contain tidal marshes.
Neotoma lepida intermedia	San Diego desert woodrat	SSC	Occurs in open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops, boulders, around clumps of cactus or yucca, or in dense undergrowth.	**None.** The project site does not support rock outcrops, boulders, or dense undergrowth. Scattered *Hesperoyucca whipplei* are present within the project site, which are not dense enough to provide suitable habitat for a woodrat nest. No woodrat middens were observed during field surveys. There are no recent occurrences within five miles of the project site.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History[3]	Potential to Occur[4]
Onychomys torridus ramona	southern grasshopper mouse	SSC	Sandy valley floors within desert scrub habitat with low to moderate shrub cover and friable soils, but also found in coastal scrub and chaparral habitats.	**Low.** The project site supports a small area of coastal scrub habitat with low to moderate shrub cover and friable soils. The nearest CNDDB occurrence was recorded in 1930, approximately 6.9 miles northeast of the project site.
Taxidea taxus	American badger	SSC	Occurs in open plains and prairies, farmland, and sometimes edges of woods.	**None.** The project site does not support prairies and farmland habitat. There are no recent CNDDB occurrences recorded within 5 miles.

Source: HELIX (2023)

1 Sensitive species reported within the Mint Canyon, Warm Springs Mountain, Green Valley, Sleepy Valley, Agua Dulce, Sunland, San Fernando, Oat Mountain, and Newhall quadrangles on the CNDDB database.

2 Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; CT = Candidate Threatened; FP = Fully Protected; SSC = State Species of Special Concern.

3 California Department of Fish and Wildlife. 2023a. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Available from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed October 29, 2023.

4 Potential to Occur is assessed as follows. **None**: Species is so limited to a particular habitat that it cannot disperse across unsuitable habitat (*e.g.* aquatic organisms), and habitat suitable for its survival does not occur on the project site; **Not Expected**: Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur on the project site (includes species recorded during surveys but only as transients); **Low**: Suitable habitat is present on the project site but of low quality and/or small extent. The species has not been recorded recently on or near the project site. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the project site and the species was recorded recently near the project site; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent for residence or breeding is present on the project site and the species has been recorded recently on or near the project site, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during biological surveys for the current project and is assumed to occupy the project site; **Presumed Absent**: Suitable habitat is present on the project site but focused/protocol surveys for the species were negative.

Appendix K

Preliminary Park Lighting Plan

SCALE: HOR. 1"=40'
VERT. 1"=

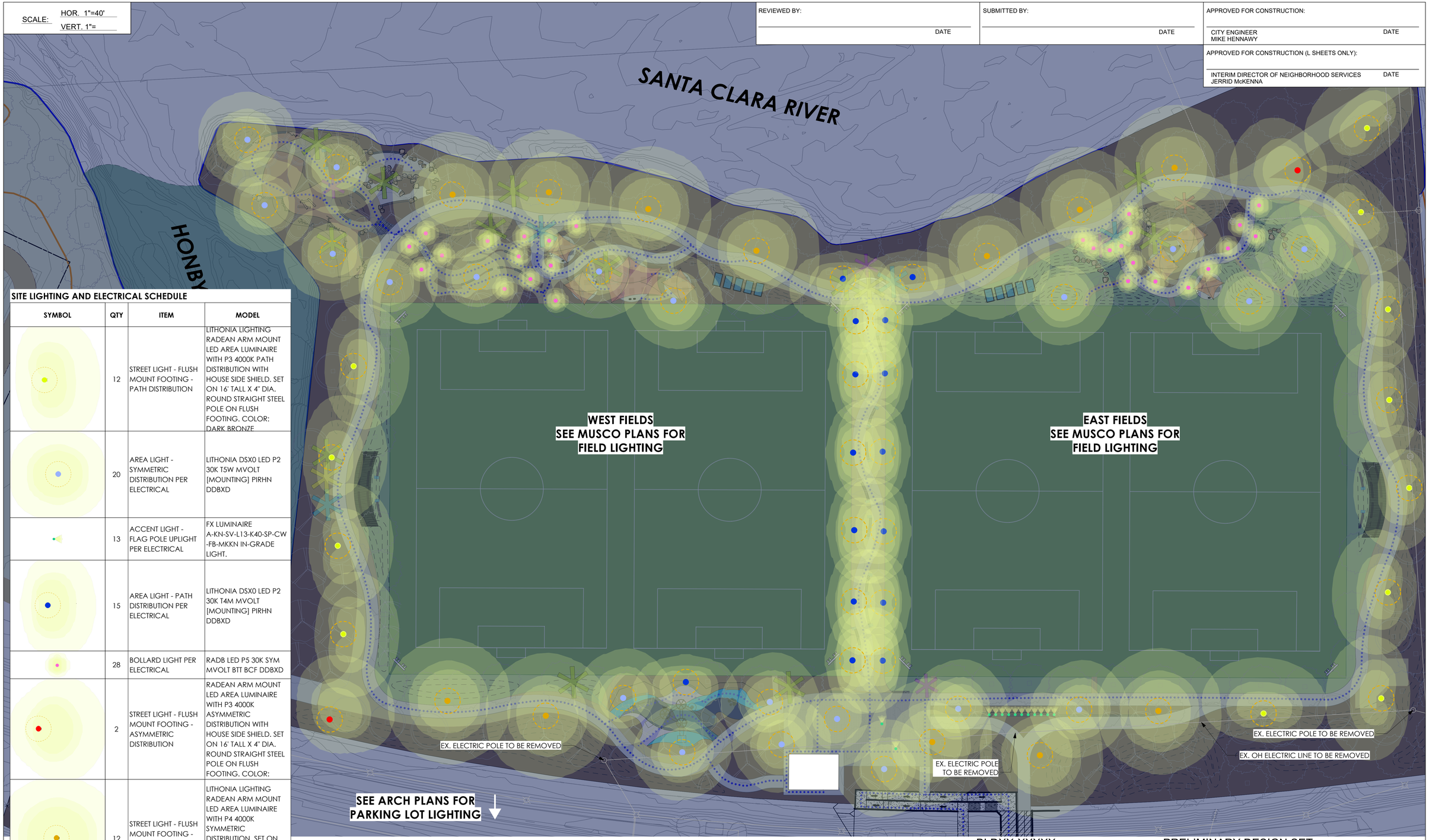
REVIEWED BY:
DATE

SUBMITTED BY:
DATE

APPROVED FOR CONSTRUCTION:
CITY ENGINEER
MIKE HENNAWY
DATE

APPROVED FOR CONSTRUCTION (L SHEETS ONLY):
INTERIM DIRECTOR OF NEIGHBORHOOD SERVICES
JERRID McKENNA
DATE

GRA22-00XX



SITE LIGHTING AND ELECTRICAL SCHEDULE

SYMBOL	QTY	ITEM	MODEL
	12	STREET LIGHT - FLUSH MOUNT FOOTING - PATH DISTRIBUTION	LITHONIA LIGHTING RADEAN ARM MOUNT LED AREA LUMINAIRE WITH P3 4000K PATH DISTRIBUTION WITH HOUSE SIDE SHIELD. SET ON 16' TALL X 4" DIA. ROUND STRAIGHT STEEL POLE ON FLUSH FOOTING. COLOR: DARK BRONZE
	20	AREA LIGHT - SYMMETRIC DISTRIBUTION PER ELECTRICAL	LITHONIA DSX0 LED P2 30K T5W MVOLT [MOUNTING] PIRHN DDBXD
	13	ACCENT LIGHT - FLAG POLE UPLIGHT PER ELECTRICAL	FX LUMINAIRE A-KN-SV-L13-K40-SP-CW -FB-MKKN IN-GRADE LIGHT.
	15	AREA LIGHT - PATH DISTRIBUTION PER ELECTRICAL	LITHONIA DSX0 LED P2 30K T4M MVOLT [MOUNTING] PIRHN DDBXD
	28	BOLLARD LIGHT PER ELECTRICAL	RADB LED P5 30K SYM MVOLT BTT BCF DDBXD
	2	STREET LIGHT - FLUSH MOUNT FOOTING - ASYMMETRIC DISTRIBUTION	RADEAN ARM MOUNT LED AREA LUMINAIRE WITH P3 4000K ASYMMETRIC DISTRIBUTION WITH HOUSE SIDE SHIELD. SET ON 16' TALL X 4" DIA. ROUND STRAIGHT STEEL POLE ON FLUSH FOOTING. COLOR:
	12	STREET LIGHT - FLUSH MOUNT FOOTING - SYMMETRIC DISTRIBUTION	LITHONIA LIGHTING RADEAN ARM MOUNT LED AREA LUMINAIRE WITH P4 4000K SYMMETRIC DISTRIBUTION. SET ON 16' TALL X 4" DIA. ROUND STRAIGHT STEEL POLE ON FLUSH FOOTING. COLOR: DARK BRONZE

0 40 80 120 FT

BLDXX-XXXXX

PRELIMINARY DESIGN SET

PLANS PREPARED BY:
Pacific Coast Land Design, Inc.
Landscape Architecture • Urban Design • Environmental Planning
461 East Main Street, Ventura, CA 93001 805.644.9597 www.pc4d.com
CHRIS HORTON RLA 6783 DATE

NO.	REVISION	REVISED BY (SIGNATURE/PRINT NAME & NUMBER)	CITY APPROVALS	APPROVAL DATE

CITY OF SANTA CLARITA
VIA PRINCESSA PARK
PRELIMINARY PARK LIGHTING PLAN

SCALE: AS SHOWN
DATE: 11/22
JOB NO. 1SAN271102
CASE NO:
SHEET: LC-1.07
OF -