

2.0 ENVIRONMENTAL SETTING

1. PURPOSE

The following discussion addresses the physical attributes of the project site, and the local and regional areas in the project vicinity. The information provided in this section enables the decision makers and the public to formulate an understanding of the project site and the surrounding area, and provides perspective on potential project impacts. The scope of this section is in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15125, which provides in part:

- (a) An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to [gain] an understanding of the significant effects of the proposed project and its alternatives.*
- (c) Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.*

The revised Notice of Preparation (NOP) for the Vista Canyon project was published and distributed on October 1, 2009; environmental conditions, as they existed on that date, establish the baseline for purposes of this environmental analysis.

In summary, this section generally describes the physical environment in which the proposed project would be located; additional information, tailored to the existing regulatory setting and the analyses of individual environmental impact categories, is provided in later sections. In this section, the emphasis is on existing local and regional land uses and environmental conditions and existing geographic/geologic features, biological resources, drainage characteristics, cultural resources, noise sources, existing road network, and specific public services.

2. REGIONAL SETTING

The location of the Vista Canyon project site relative to the regional and local setting is illustrated in **Figures 1.0-1** and **1.0-2**, respectively (see **Section 1.0, Project Description**). As shown, the project site is situated in the eastern portion of Santa Clarita Valley in unincorporated Los Angeles County. The City of

Santa Clarita borders the project site to the north and east, and this urbanized region is characterized by a variety of existing land uses and physical features.

Vehicular access to the Santa Clarita Valley is primarily from I-5, which is the major north-south freeway corridor in the area, and SR-14, which runs along the eastern side of the Santa Clarita Valley and then northeasterly to the cities of Lancaster and Palmdale in the Antelope Valley. SR-126 provides a westerly connection to the Santa Clarita Valley. The closest major airport is the Burbank-Glendale-Pasadena Airport, located approximately 16 miles southeast of the project site.

A variety of topographic features contribute to the regional setting of the project site. The Santa Clarita Valley (Valley) is generally flat with some gently rolling hills that range in elevation from approximately 1,200 to 1,600 feet. The Valley is bordered on the south by the Santa Susana Mountains, to the east by the San Gabriel Mountains, and to the north and west by the Angeles National Forest. The mountain ranges that surround the Valley can be viewed from great distances and from the other more dominant visual features in the area. For example, Whitaker Peak to the north of the project site has an elevation of 4,148 feet, Oat Mountain to the south is 3,747 feet high, and Mt. Gleason to the east has an elevation of 6,502 feet. Several watercourses, the largest of which is the Santa Clara River, cross the Valley floor. However, the watercourses in the project area usually are dry, maintaining surface water flow only during storms in the winter months. Other prominent topographic features of the Valley are the north-south trending canyons.

The Santa Clarita Valley has a Mediterranean-type climate characterized by warm, dry summers, and mild winters. Most rainfall occurs between November and March, and typically totals approximately 15 to 18 inches annually. Santa Ana winds often sweep through the area in the fall and winter months, bringing periods of warm, dry weather. The Southern California area has been divided into a number of geographical air basins. The Santa Clarita Valley is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. Due to the topography and climate within the basin, the South Coast Air Basin consistently generates the highest levels of smog in the United States and, therefore, is considered to have the worst air quality in the nation.

The Santa Clarita Valley is divided into two jurisdictional regions: (1) the City of Santa Clarita; and (2) the unincorporated areas of Los Angeles County. The City of Santa Clarita generally is located in the more central portions of the Santa Clarita Valley, with unincorporated County areas surrounding the City. The project site is located in the unincorporated portion of the Valley, but borders the City boundary along the north and east. As proposed, the project site and surrounding (mostly developed) properties would be annexed into the City of Santa Clarita.

3. LOCAL SETTING

a. Surrounding Land Uses

The approximately 185-acre project site is surrounded by developed land uses, which are primarily residential. Residential and commercial development, and SR-14, are located to the north of the project site. The Colony Townhomes, a multi-family residential community, is directly west of the project site. The Fair Oaks Ranch community, which is comprised of single-family and multi-family residential units, an elementary school, and community park, lies to the south and west. The existing Metrolink rail line is located to the south of the project site. The La Veda and Lost Canyon residential areas, which consist of homes, and a public and private elementary school, lie to the east. The Santa Clara River bisects the project site.

b. Site Characteristics

The project site is irregularly shaped and consists of approximately 185 acres. The project site includes the sandy bottom of the ephemeral Santa Clara River, a small elevated terrace on the northeastern portion of the project site, and a larger elevated terrace that forms the southern half of the of the project site. These terraces drain towards the River. Elevations on the project site range from a high of 1,555 feet above sea level at the northeastern portion of the site, to a low of 1,465 feet above sea level in the middle of the Santa Clara River.

The project site is comprised primarily of undeveloped, disturbed land, except for an equipment storage yard and a single-family residence located on the western side of the project site, and the Mitchell family cemetery located on the small elevated terrace on the northeastern portion of the project site. Remains of the Mitchell family homestead also are located on the southeastern portion of the project site, within the proposed Oak Park. These remains consist primarily of building foundations and fencing associated with past ranching and agricultural operations. **Figures 2.0-1 through 2.0-7** depict the existing conditions on the project site.

Environmental conditions on the project site have been altered substantially by historical uses of the property, including outdoor storage, agricultural cultivation, grading, and residential uses. Unauthorized dumping also has occurred on the project site. There is little remaining natural vegetation remaining with the exception of a vegetated area on the southeastern portion of the project site that includes some standing oaks and introduced grasses. The requested project approvals include Oak Tree Permit No. 07-002, which would be required for the removal of 10 of the 41 oak trees located on the project site.

(1) Geological Resources

The project site is situated within the Soledad Basin, north of the Santa Susana Mountains and south of the Angeles National Forest, and is located within the tectonically active Transverse Ranges of Southern California. The active San Andreas Fault is located about 20 miles northeast of the project site, and the San Gabriel Fault is located approximately 1.5 miles southwest of the project site.

The major geologic hazard for project residents would be ground shaking related to earthquake activity originating along these faults. Much of the Santa Clarita Valley is within a zone of potential liquefaction hazard. Even though there was a Peak Ground Acceleration (PGA) in excess of 0.5 standard gravity in many parts of the Valley during the 1994 Northridge Earthquake, liquefaction was not observed. There are numerous reasons for the absence of liquefaction-related stress at the ground surface. One reason is that the thickness of non-liquefiable soils is greater than the liquefiable layers and the effects of liquefaction of deep layers do not manifest themselves at the ground surface. Nonetheless, there is a potential for permanent deformation of the ground surface and liquefaction at the project site during a seismic event. Please see **Section 4.1, Geotechnical Hazards**, for a complete discussion of geological setting and impacts at the project site.

(2) Biology

The project site is disturbed by existing and historical land uses; however, existing sensitive biological resources and habitat types occur on the project site and within its vicinity. On-site vegetation communities vary depending upon their location within the project site. Habitat communities include, among others, non-native grassland, upland scrub habitat, and riparian habitat located primarily in areas adjacent to and within the Santa Clara River.

The Significant Ecological Area (SEA) is one of several land use classifications set forth in the Land Use Element of the Los Angeles County General Plan. The County designated five locations in the Santa Clarita Valley planning area as SEAs. The Santa Clara River SEA (SEA 23) and the Valley Oaks Savannah SEA (SEA 64) are the only two SEAs designated within the boundaries of the City of Santa Clarita. The Santa Clara River SEA, or SEA 23, designation encompasses portions of the project site.

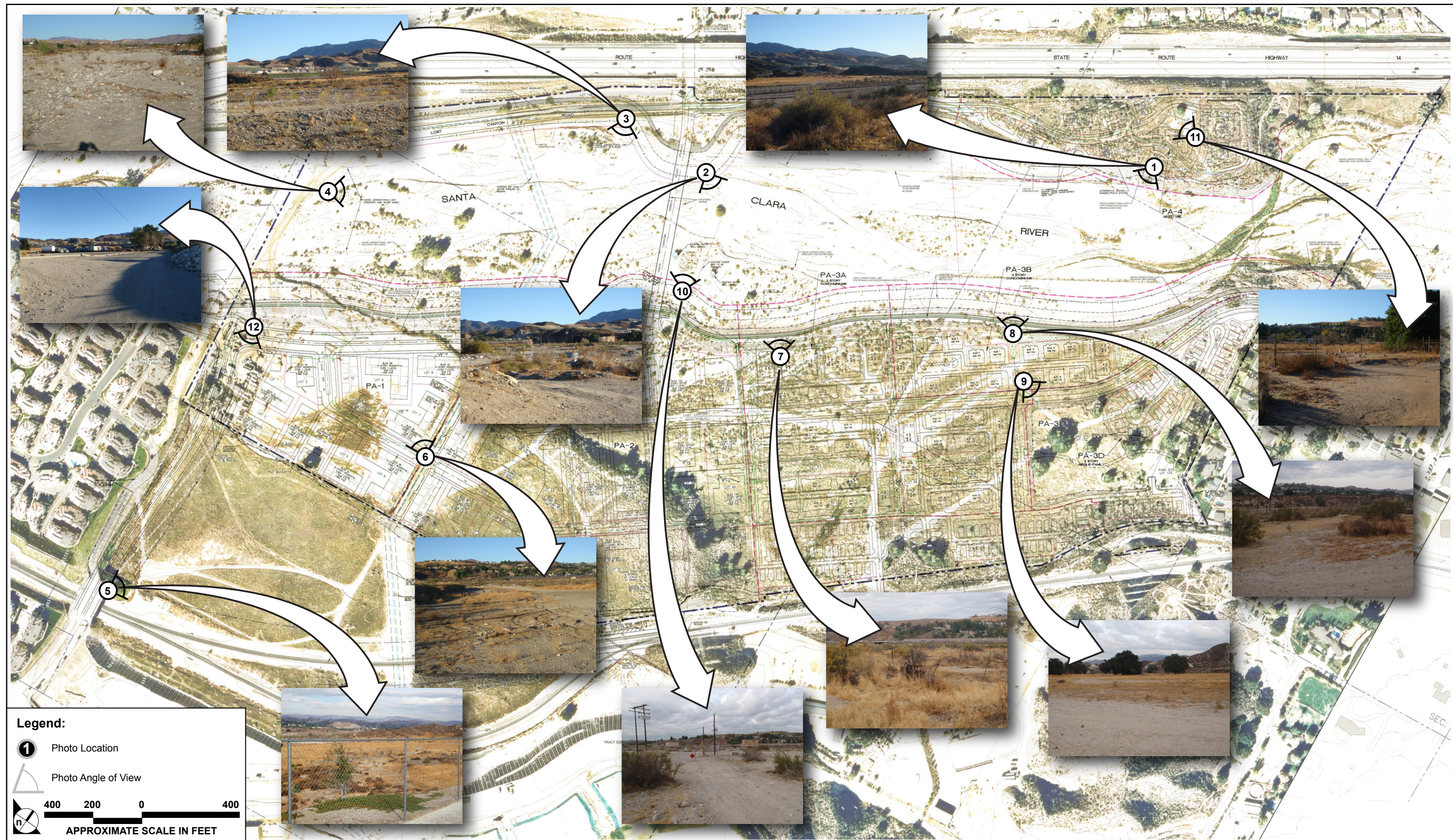


FIGURE 2.0-1

Photograph Location Map



Viewpoint 1: Mitchell Hill-Looking Southeast Across Project Site



Viewpoint 2: Proposed Vista Canyon Bridge-Looking South Across Project Site

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-2**



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Viewpoint 1 and 2



Viewpoint 3: Looking South Across Project Site



Viewpoint 4: Santa Clara River-Looking East

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-3**



Viewpoint 3 and 4



Viewpoint 5: Lost Canyon Road Terminus-Looking Northeast Across Project Site



Viewpoint 6: PA-1-Looking North Across Project Site

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-4**



Viewpoint 5 and 6



Viewpoint 7: PA-3-Looking North Across Project Site



Viewpoint 8: PA-3-Looking North to Mitchell Hill

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-5**



Viewpoint 7 and 8



Viewpoint 9: PA-3-Looking Southeast to Oak Trees



Viewpoint 10: Santa Clara River-Santa Clarita Water Wells

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-6**



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Viewpoint 9 and 10



Viewpoint 11: Mitchell Family Cemetery



Viewpoint 12: Looking South to Home and Storage Yard

SOURCE: Impact Sciences, Inc. – April 2009

FIGURE **2.0-7**



Viewpoint 11 and 12

The SEA designation generally identifies important lands or water areas with valuable plant and animal communities. Both the County and City General Plans describe SEA 23, which was designated primarily because of the threat of loss of suitable habitat for the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a federal and state-listed endangered species. This species formerly occurred in the Los Angeles, San Gabriel, and Santa Ana rivers, but is now restricted to the Santa Clara River, San Francisquito Canyon, and San Antonio Creek on Vandenberg Air Force Base. The stickleback requires clean, free-flowing perennial streams and banks surrounded by natural vegetation.¹ The stickleback has not been detected within the project site because the portion of the Santa Clara River within the project site is primarily dry, with surface flows only present during and immediately after large storm events in the winter months.

The current SEA 23 boundary is based on the limits of the Floodway/Floodplain land use designation shown on the General Plan's Land Use Map. The Land Use Map generally corresponds to the existing Federal Emergency Management Agency (FEMA) 100-year floodplain boundary, which is based on an elevation equal to the surface elevation of the FEMA 100-year flood, and not the sensitive biological resources associated with the Santa Clara River.

Please refer to **Section 4.6, Biological Resources**, and **Section 4.20, Santa Clara River Corridor Analysis** of this EIR for additional information on the existing regulatory setting and analysis of sensitive biological resources within the project site.

(3) Drainage Characteristics

The project site is within the Santa Clara River basin. Further, the FEMA 100-year floodplain for the Santa Clara River is located on portions of the project site. The reach of the Santa Clara River within the project site is predominately dry, with surface flows only occurring during the winter months following significant storm events. Beneath the surface of the project site and related off-site improvements, groundwater is found within the Alluvial aquifer. Please refer to **Section 4.2, Flood** for additional information on the existing drainage characteristics of the proposed project.

(4) Cultural Resources

An intensive Phase I archeological survey of the project site was conducted in September 2008. Two sites were recorded during the survey. The first site, given the temporary designation VC-1/H, has two components: (1) a prehistoric (aboriginal) site identified as a low-density habitation or camp; and (2) the Mitchell family cemetery. The second site, VC-2/H, is the location of the original Mitchell

¹ See City of Santa Clarita General Plan, Open Space and Conservation Element, p. OS-5.

homestead/ranch headquarters. Although no structures exist at site VC-2/H, eight features were observed within this site. The proposed project would preserve: (a) the Mitchell family cemetery, located within site VC-1/H; and (b) site VC-2/H, which would be contained within the proposed Oak Park.

In accordance with CEQA, Phase II archaeological studies were conducted at site VC-1/H. The Phase II fieldwork involved mapping, the surface collection of ground-surface artifacts and archaeological indicators, and the hand excavation of test pits, along with laboratory processing, cataloging, and analyses of the recovered artifact collection.

Site VC-1/H was determined to be a small camp site, located on a knoll and low terrace on the north side of the Santa Clara River. The site is about 24,150 square meters, and includes subsurface deposits that range from about 20 to 80 cm in depth. Based on the recovered artifact assemblage, the site appears to represent a Middle period settlement dating from circa 4000 to 1500 Years Before Present (YBP). Further, it appears to have been seasonally occupied by a small group of people whose subsistence practices emphasized plant foods, probably hard seeds, and a generalized hunting pattern. Potential impacts to cultural resources are addressed in further detail in **Section 4.18, Cultural Resources**.

(5) Noise

The northern portion of the project site presently is subject to vehicle trip noise sources generated along SR-14. This portion of the project site consists primarily of the Santa Clara River, but also includes a small elevated terrace that currently is undeveloped, except for the Mitchell family cemetery. The Southern Pacific Railroad borders the project site along approximately 2,000 feet of its southern boundary, and this portion of the project site is subject to railroad noise originating from this source. Noise impacts are addressed in further detail in **Section 4.5, Noise**.

(6) Air Quality

The project site is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The site also is located in a transitional microclimatic zone (termed valley marginal and high desert), and Source Receptor Area (SRA) 13, which encompasses the Santa Clarita Valley. The station that monitors the air quality within this SRA, located at 12th Street and Placerita Canyon Road, has registered values above state and federal standards for ozone and the state standard for particulate matter that is 10 microns or smaller in size (PM₁₀). Concentrations of carbon monoxide and nitrogen dioxide have not been exceeded within the Santa Clarita Valley, and concentrations of two other criteria pollutants — sulfur dioxide and lead — have not been exceeded anywhere within the basin for several years. Please refer to **Section 4.4, Air Quality**, for additional information on ambient air quality on, and in the vicinity of, the project site.

(7) Existing Roadway Network

Major arterial streets near the project site include Sand Canyon Road and Soledad Canyon Road. SR-14 provides regional access to the project site and borders the northern boundary of the site, while I-5 is located approximately 4.5 miles west of the project site. The project site currently is accessed via Lost Canyon Road on the east, a short extension of Lost Canyon Road on the north, and Woodfall Road on the west. The project site also is adjacent to a Metrolink rail right-of-way; the rail corridor includes the Metrolink Santa Clarita/Antelope Valley commuter line and freight service. The traffic/access impacts anticipated from the proposed project are addressed in detail in **Section 4.3, Traffic and Access**.

(8) Public Services

The Santa Clarita Water Division of the Castaic Lake Water Agency (CLWA) is the local retail water purveyor for the proposed project. Please refer to **Section 4.8, Water Services**, for additional information regarding water supply and demand and related issues.

The proposed Vista Canyon Water Reclamation Plant (WRP) would treat wastewater generated by the project. A portion of the treated wastewater would be utilized on site for landscape irrigation with the remaining wastewater directed to on-site percolation ponds or the CLWA recycled water system for use off site for landscape irrigation purposes. Please refer to **Section 4.21, Wastewater Disposal**, for additional information regarding such wastewater facilities and services.

The proposed project would be served by the County of Los Angeles Sheriff's Department, and the California Highway Patrol would provide traffic regulation, enforcement, and other services on I-5, SR-126, and SR-14. Please refer to **Section 4.14, Sheriff Services**, for additional information regarding the provision of such services for the proposed project.

Fire protection and emergency medical response services for the proposed project would be provided by the Los Angeles County Fire Department. Please refer to **Section 4.13, Fire Services**, for additional information regarding the provision of such services.

The proposed project would be served by Sulphur Springs School District for elementary school, and by the William S. Hart Union High School District for junior and senior high school education. Please refer to **Section 4.10, Education**, for additional information regarding educational services.

Library services for the proposed project would be provided by the County of Los Angeles Public Library system. Please refer to **Section 4.11, Library Services**, for additional information regarding library services.

Parks and recreation opportunities would be provided on the project site, along with several other existing and proposed parks and recreation facilities in proximity to the project site. Please refer to **Section 4.12, Parks and Recreation**, for additional information regarding such parks and recreation facilities and services.